

FlexWATCH®

Web Admin User Manual

For Camera models with the firmware version 4.40 or above

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Precaution on microSD card

- ✓ Do not use force, a thin stick or tweezers to remove the microSD card. If you cannot remove the microSD card, contact customer support.
- ✓ To prevent any data damage, follows the below caution. We do not provide any guarantee for damaged data
 - Do not remove a memory card or Do not turn off the IP Camera while reading or writing data,
 - Do not operate the IP Camera in the location where static charge or electrical noise is present.
- ✓ Do not remove the microSD card while IP Camera is recording. Disable the Recording configuration first and then turn off the IP Camera before removing microSD card. Do not insert a deformed microSD card into the Reader.
- ✓ Do not try to access microSD card extracted from IP Camera on Windows PC or other devices. If Linux file system like ext3, ext4 is not installed, It may destroy all data of microSD card.
- ✓ Regular maintenance by formatting microSD card in every 6 months is highly recommended as microSD card could be damaged by physical, or electrical characteristics. or its file system may be fragmented, resulted in degradation in performance by repeated access.
- ✓ Formatting microSD card will delete all files stored on it. You may use FlexWATCH SmartPlayer to back up the recorded video stream as AVI file before formatting

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2. Introduction

This manual covers the FlexWATCH® camera models with firmware version 4.30-B3 or above.

Note: All instructions and information in this manual are valid for FlexWATCH® devices mentioned above unless otherwise stated.

3. Web Admin Page

Most of the features in the FlexWATCH® device can be set up by an authorized user or an administrator via the Web Admin Page.

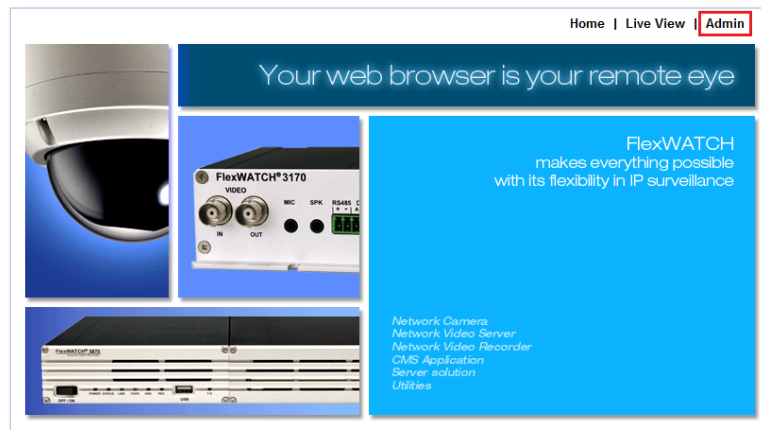
3.1 Entering the Web Admin Page

To login to the Web Admin Page, follow the steps below:

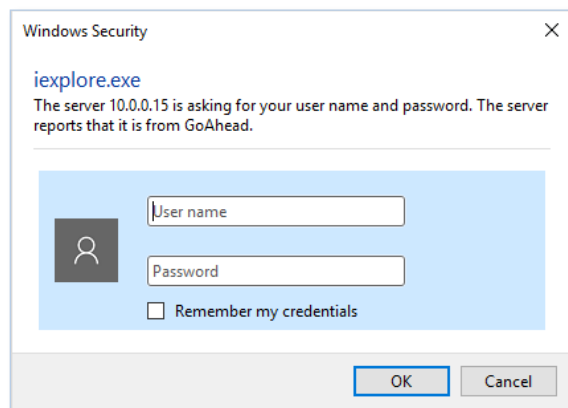
- 1) Enter the **IP Address** or **Domain Name** of the FlexWATCH® device at the address bar on your web browser.

*Note: We recommend Internet Explorer as a web browser for using FlexWATCH devices.
The initial IP setting for the FlexWATCH® device can be done through **IP Installer** software which can be found in the enclosed CD or software download page at FlexWATCH® Web Site (<http://www.FlexWATCH®.com/support/download/software.asp>).*

- 2) When connected to the FlexWATCH® device via the web browser successfully, the device home page will be displayed as shown below.



- 3) Click **Admin** at the upper right corner of the device home page.
- 4) Enter **User name** and **Password** when an authentication window is appeared as shown below, and then click **OK**.



Note: The default user name and password is "root".

5) The Web Admin Page will appear as shown below when the login is successfully finished.

The screenshot displays the Web Admin interface. On the left is a navigation menu with the following items:

- Basic Setup
 - Network
 - IP Address
 - Web Port
 - RTP/RTSP
 - Video & Audio
 - Video Streams
 - Primary Stream
 - Secondary Stream
- Video & Device
 - Video Streams
 - Camera Settings
 - Primary Stream
 - Secondary Stream
 - Motion Detection
 - Privacy Zone
 - Serial Ports
 - Serial Input Mode
 - Serial Output Mode
 - Transparent Mode
 - PTZ Mode
 - DI/DO
 - DI Status/DO Control

The main content area shows the 'Basic Setup' configuration page. It includes a title 'Basic Setup' and a subtitle 'This category shows the detailed method for Quick Configuration.' Below this is a table:

Category	Description
IP Address	Configuration of Network(IP,Netmask,DNS).
Web Port	Modification of HTTP and other application network port numbers.
RTP/RTSP	Configuration of RTP/RTSP.
Video Streams	Configuration of video mode and the details.
Primary Stream	Configuration of primary stream.
Secondary Stream	Configuration of secondary stream.

3.2 Web Admin Menu Navigation

The following table shows the hierarchy of the Web Admin Page menu structure:

Category	Main Menu	Level 1 Sub-Menu	Level 2 Sub-Menu
Basic Setup	Network	IP Address Web Port RTP/RTSP	N/A
	Video & Audio	Video Stream Primary Stream Secondary Stream	N/A
Video & Device	Video Stream	Camera Settings Primary Stream Secondary Stream Tertiary Stream	N/A
	Motion Detection	N/A	N/A
	ROI	N/A	N/A
	Privacy Zone	N/A	N/A
	PTZ	PTZ OSD Menu PTZ Preset	N/A
	Serial Ports	Serial Input Mode Serial Output Mode Transparent Mode PTZ Mode	
	DI/DO	N/A	N/A
	DI Status/DO Control	N/A	N/A
Recording	Disk Setting	Disk Status & Format Disk Information Disk Circulation Disk Status Report	N/A
	Recording Setting	Built-in Module 0	Camera 1 Camera 2 Camera 3

			Camera 4
	Recording Profile	N/A	N/A
	Clear Setting	N/A	N/A
	Delete Recorded Data	N/A	N/A
Network	IP Address	N/A	N/A
	Web Port	N/A	N/A
	RTP/RTSP	N/A	N/A
	Bandwidth	N/A	N/A
	Network Status	N/A	N/A
	Network Status Notify	N/A	N/A
	DDNS	N/A	N/A
	UPnP	N/A	N/A
	SNMP	N/A	N/A
	HTTPS	N/A	N/A
	Zeroconf	N/A	N/A
	IP Filtering	N/A	N/A
	System	Name	N/A
Hostname		N/A	N/A
Date & Time		N/A	N/A
Admin. Password		N/A	N/A
Access Level		N/A	N/A
User		N/A	N/A
Advanced	Advanced Services	Email FTP (Buffered) FTP (Periodic) Sensor Notification Alarm Output	Camera 1 Camera 2 Camera 3 Camera 4
Utilities	Log	N/A	N/A
	Reboot	N/A	N/A
	Restore Default	N/A	N/A
	Update	N/A	N/A

4. Basic Setup

Basic Setup provides shortcuts to the settings that should be made before using the FlexWATCH® device.

4.1 Network

4.1.1 IP Address

Please see page 39.

4.1.2 Web Port

Please see page 41.

4.1.3 RTP/RTSP

Please see page 41.

4.2 Video & Audio

4.2.1 Video Streams

Please see page 10.

4.2.2 Primary Stream

Please see page 17.

4.2.3 Secondary Stream

Please see page 17.

4.2.4 Tertiary Stream

Please see page 17.

5. Video & Device

Video, Audio, Motion Detection, Streaming and External device related settings are available in this menu.

5.1 Video Streams

Note: Video stream settings page may vary depending on the model number or firmware version. Please check the device model number first before you read the information below.

For Dual Stream Camera Models

Video Streams

Max Frame Rate		<input checked="" type="radio"/> 30 fps <input type="radio"/> 25 fps
Video with Flexible Extra System data		<input type="checkbox"/> Enable
Video with user defined message		<input type="checkbox"/> Enable
Video with PPP status		<input type="checkbox"/> Enable
Video with camera name		<input type="checkbox"/> Enable
Video with server name		<input type="checkbox"/> Enable
Video with IP address		<input type="checkbox"/> Enable
Time Stamp		<input type="radio"/> On <input checked="" type="radio"/> Off
Primary Stream	Frame Rate	30 fps ▼
	Image Size	1920 x 1080 ▼
	Encoding Standard	<input type="radio"/> M-JPEG <input checked="" type="radio"/> H.264
	Audio	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Secondary Stream	Frame Rate	10 fps ▼
	Image Size	320 x 176 ▼
	Encoding Standard	<input type="radio"/> M-JPEG <input checked="" type="radio"/> H.264
	Audio	<input type="radio"/> Enable <input checked="" type="radio"/> Disable

»»	Camera Settings
»»	Primary Stream
»»	Secondary Stream

For Triple Stream Camera Models

Video Streams

Max Frame Rate		<input checked="" type="radio"/> 30 fps <input type="radio"/> 25 fps
Video with Flexible Extra System data		<input type="checkbox"/> Enable
Video with user defined message		<input type="checkbox"/> Enable
Video with PPP status		<input type="checkbox"/> Enable
Video with camera name		<input type="checkbox"/> Enable
Video with server name		<input type="checkbox"/> Enable
Video with IP address		<input type="checkbox"/> Enable
Time Stamp		<input type="radio"/> On <input checked="" type="radio"/> Off
TV Out		<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Primary Stream	Frame Rate	30 fps ▼
	Image Size	2048 x 1536 ▼
	Encoding Standard	<input type="radio"/> M-JPEG <input checked="" type="radio"/> H.264
	Audio	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Secondary Stream	Frame Rate	30 fps ▼
	Image Size	704 x 480 ▼
	Encoding Standard	<input type="radio"/> M-JPEG <input checked="" type="radio"/> H.264
	Audio	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Tertiary Stream	Frame Rate	30 fps ▼
	Image Size	320 x 240 ▼
	Encoding Standard	<input type="radio"/> M-JPEG <input checked="" type="radio"/> H.264
	Audio	<input type="radio"/> Enable <input checked="" type="radio"/> Disable

»»	Camera Settings
»»	Primary Stream
»»	Secondary Stream
»»	Tertiary Stream

»»	Max. Video Encoding
»»	3M x 30 fps ▼

- **Max Frame Rate:** Depending on the power frequency can operate the device with NTSC (30FPS) or PAL (25FPS).
- **Video with UART Flexible Extra System Data:** If Enabled, video data will contain UART sensor data from COM port.
- **Video with User defined message:** If Enabled, video data will contain the user-defined message data.
- **Video with PPP status:** If enabled, video data will contain PPP connection status.
- **Video with Camera name:** If enabled, video data will contain the camera name defined by user.
- **Video with IP address:** If enabled, video data will contain the IP address of the FlexWATCH® device.
- **Time Stamp:** If enabled, video data will contain the time stamp.
- **Frame Rate:** FPS (Frame Rate per Second) can be set to the video streams independently. Available FPS are follows: 30 / 15 / 10 / 7.5 / 5 / 3.75 / 3 / 2 / 1
- **Encoding Standard:** Select the compression type for each stream, either M-JPEG or H.264.

- **Image Size:** Select the image size for each video stream.
To check the supported resolution, please refer to the resolution tables below
- **Audio:** Select if Audio function is to be used. Bi-directional (Two-way) Audio is supported.

Primary Stream

Camera Model	QXGA	Full HD	SXGA (HD)	D1	CIF	QCIF
VGA series	-	-	-	640 x 480	320 x 240	160 x 112
1.3 Megapixel Series	-	-	1280 x 1024	704 x 480	320 x 240	160 x 112
2.0 Megapixel Series	-	1920 x 1080	1280 x 720	704 x 480 640 x 352	320 x 176	160 x 96
3.0 Megapixel Series	2048 x 1536	-	1280 x 1024	640 x 480	320 x 240	160 x 112

Secondary Stream

Camera Model	D1	CIF	QCIF
VGA series	640 x 480	320 x 240	160 x 112
1.3 Megapixel Series	704 x 480	320 x 240	160 x 112
2.0 Megapixel Series	704 x 480 640 x 352	320 x 176	160 x 96
3.0 Megapixel Series	640 x 480	320 x 240	160 x 112

Tertiary Stream

Camera Model	CIF	QCIF
3.0 Megapixel Series	320x240	160x112

- **Max. Video Encoding:** Select maximum resolution and frame rate of primary stream for the FlexWATCH® device.
Available options are follows: 2M x 30fps, 2M x 60fps, 3M x 30fps

*Note: Depending on the camera model, **Max. Video Encoding** option may not be supported.*

5.1.1 Camera Settings

This setting page provides image related settings for the FlexWATCH® device.

For following camera models: FW1173-FX, FW1174-FC, FW1175-FM, FW1175-FX, FW1176-FM, FW1176-FX, FW7501-FC3, FW7504-FTM, FW7504-FTV, FW7601-FTM, FW7601-FTV, FW7601-FC3, FW7901-FTM, FW7901-FTV, FW7901-FC3

Lens Type	<input checked="" type="radio"/> DC Iris <input type="radio"/> Manual Iris
Noise Filter	<input checked="" type="radio"/> Off <input type="radio"/> On
Brightness	144 (Default:144, 0 ~ 256)
Contrast	16 (Default:16, 0 ~ 30)
Sharpness	3 (Default:3, 0 ~ 5)
AGC Gain	50 (Default:50, 1 ~ 126)
Sens Up Level	0 (Default:0, 0 ~ 5)
WDR	<input checked="" type="radio"/> Off <input type="radio"/> On
Day & Night Control	Auto ▼
Day & Night Dwelling Time	4 sec (Default:4, 0 ~ 255)
Day & Night Detect	<input checked="" type="radio"/> Internal <input type="radio"/> External
The threshold of day to night	15 (Default:15, 1 ~ 32)
The threshold of night to day	3 (Default:3, 1 ~ 32)
Vertical Flip	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Horizontal Flip	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Manual Shutter Enable	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Video Output	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Video Output Channel	<input checked="" type="radio"/> Primary <input type="radio"/> Secondary

- **Lens Type:**
 - **DC Iris:** Select if a DC powered auto IRIS Lens is mounted.
 - **Manual Iris:** Select if Manual IRIS lens or no iris built-in lens is mounted.
- **Noise Filter:** Used to reduce static on image.
- **Brightness:** Select the brightness of image between 0 and 256.
- **Contrast:** Select the contrast of image between 0 and 30.
- **Sharpness:** Select the sharpness of image between 0 and 5.
- **AGC Gain (Auto Gain Control):** Based on Selected AGC sensitivity level, amplifies the video signal to make the screen brighter in low light conditions automatically. In the higher sensitivity level, video noise may be increased.
- **Sens Up Level:** Based on selected Sens Up Level, lowering the shutter speed of the camera in low light conditions automatically.
- **WDR (Wide Dynamic Range):** Wide dynamic range can improve the exposure when there is a considerable contrast between light and dark areas in the image. Enable WDR in intense backlight conditions.
- **Day & Night Control:**
 - **Disable:** Color Mode.
 - **Black & White:** Black & White Mode.
 - **Auto:** Color mode for normal condition (daytime), Black & White for Low Light condition (Night Time).
- **Day & Night Dwelling Time:** Set the metering cycle of Light Sensor in seconds.
- **Day & Night Detect:**
 - **Internal:** Use built-in light sensor.
 - **External:** Use external light sensor.
- **The threshold of day to night:** This is the point of transition from Day to Night mode. Select between 1 and 32, and lower the value the earlier the transition point.
- **The threshold of night to day:** This is the point of transition from night to day mode. Select between 1 and 32, and lower the value the earlier the transition point.
- **Vertical Flip:** Rotate the image 180° vertically.
- **Horizontal Flip:** Rotate the image 180° horizontally.
- **Manual Shutter Enable:** If enabled, the shutter speed will be selected manually. If disabled, it is

controlled automatically.

- **Video Output: Enable** the analog Video output (NTSC/PAL).
- **Video Output Channel:** Select a video stream for video out.

For following camera models: FW7300-TXN, FW7500-TXM, FW7500-TXV, FW7502-TVP, FW7502-TVF, FW7504-TVM, FW7504-TVV, FW7901-TVM, FW7901-TVV, FW7902-TVF, FW7930-TXM, FW9302-TXM

Iris Control	<input checked="" type="radio"/> DC Iris <input type="radio"/> Manual Iris	
Shutter Control	<input checked="" type="radio"/> Auto <input type="radio"/> Manual	
Brightness	128	(Default:128, 0 ~ 255)
Brightness	128	(0 ~ 255)
Contrast	128	(0 ~ 255)
Hue	128	(0 ~ 255)
Saturation	128	(0 ~ 255)
Sharpness	128	(0 ~ 255)
White Balance	Auto Mode ▾	
2DNR	<input type="radio"/> Disable <input checked="" type="radio"/> Enable	
3DNR	<input type="radio"/> Disable <input checked="" type="radio"/> Enable	
Max AGC Gain	250	(Default:250, 1 ~ 500)
Sens Up Level	0	(Default:0, 0 ~ 5)
WDR	<input checked="" type="radio"/> Disable <input type="radio"/> Enable	
Day & Night Control	Auto ▾	
Day & Night Dwelling Time	4	sec (Default:4, 0 ~ 255)
Day to night threshold	15	(Default:15, 1 ~ 32)
Night to day threshold	3	(Default:3, 1 ~ 32)
Vertical Flip	<input checked="" type="radio"/> Disable <input type="radio"/> Enable	
Horizontal Flip	<input checked="" type="radio"/> Disable <input type="radio"/> Enable	

- **Iris Control:**
 - **DC Iris:** Select if a DC powered auto IRIS Lens is mounted.
 - **Manual Iris:** Select if Manual IRIS lens or no iris built-in lens is mounted.
- **Shutter Control:** If Manual is selected, the shutter speed will be selected manually. If not, the shutter speed will be controlled by the FlexWATCH® device automatically.
- **Brightness:** Select the brightness of image between 0 and 255.
- **Contrast:** Select the contrast of image between 0 and 255.
- **Hue:** Select the hue of image between 0 and 255.
- **Saturation:** Select the saturation of image between 0 and 255
- **Sharpness:** Select the sharpness of image between 0 and 255.
- **White Balance:**
 - **AutoMode:** Adjust white and gray-scale parameters in video, based on the color temperatures of the viewed scene automatically.
 - **Manual Temp. Mode:** Adjust white balance based on the selected color temperature as following: INCANDESCENT LIGHT, COOL LIGHT, SUN LIGHT, CLOUDY, SUN SHADE.
 - **Manual RGB Mode:** Adjust white balance based on the selected RGB values.
- **2DNR:** 2 Dimensional Noise Reduction analyzes individual frames of video, identifying algorithmically and correcting those pixels that likely represent noise. Select whether to use this feature or not.
- **3DNR:** 3 Dimensional Noise Reduction analyzes the differences between successive frames in order to adjust pixels and improve fidelity. Select whether to use this feature or not.
- **Max AGC(Auto Gain Control) Gain:** Based on Selected maximum AGC gain, amplifies the video signal to make the screen brighter in low light conditions automatically. In the higher gain value, video noise may be increased.
- **Sens Up Level:** Based on selected Sens Up Level, lowering the shutter speed of the camera in low light conditions automatically.
- **WDR (Wide Dynamic Range):** Wide dynamic range can improve the exposure when there is a considerable contrast between light and dark areas in the image. Enable WDR in intense backlight conditions.
- **Day & Night Control:**

- **Disable:** Color Mode.
- **Black & White:** Black & White Mode.
- **Auto:** Color mode for normal condition (daytime), Black & White for Low Light condition (Night Time).
- **Day & Night Dwelling Time:** Set the metering cycle of Light Sensor in seconds.
- **Day & Night Detect:**
 - **Internal:** Use built-in light sensor.
 - **External:** Use external light sensor.
- **The threshold of day to night:** This is the point of transition from Day to Night mode. Select between 1 and 32, and lower the value the earlier the transition point.
- **The threshold of night to day:** This is the point of transition from night to day mode. Select between 1 and 32, and lower the value the earlier the transition point.
- **Vertical Flip:** Rotate the image 180° vertically.
- **Horizontal Flip:** Rotate the image 180° horizontally.

For following camera models:

FW1173-WS, FW1175-WM, FW1175-WS, FW1179-WM, FW1179-WS, FW7930-WSM, FW9302-WSM

Lens

Lens Exposure Back Light Day & Night White Balance Image	
Lens Type	<input type="radio"/> ELC <input checked="" type="radio"/> ALC
AF Mode	<input checked="" type="radio"/> Auto <input type="radio"/> Manual
Scanning	<input checked="" type="radio"/> Half <input type="radio"/> Full
Day & Night Auto Focus	<input checked="" type="radio"/> Off <input type="radio"/> On

- **Lens Type:**
 - **ELC:** When using a fixed or manual iris lens, the camera's ELC can adjust for moderate changes in illumination levels. While it is fine for indoor applications in fixed illumination conditions, a fixed iris and ELC circuitry cannot approach the range of illumination usable with an auto-iris lens and ALC circuitry.
 - **ALC:** When using an auto-iris lens, the ALC circuitry samples the illumination level and automatically adjusts the iris to create the proper sized aperture for proper exposure.
- **AF (Auto Focus) Mode:** Select whether to use auto focus feature or not.
- **Scanning:** Select scanning area for auto focus.
 - Half: Scanning half area for fast auto focus.
 - Full: Scanning full area for accurate focus.
- **Day & Night Auto Focus:** Automatically adjust focus when Day & Night mode is converted.

Exposure

Lens Exposure Back Light Day & Night White Balance Image	
Brightness	10 (Default:10, 0 ~ 20)
Shutter	Auto ▾
Lens ELC Mode	<input checked="" type="radio"/> Normal <input type="radio"/> Deblur
Lens ALC Mode	Indoor ▾
Manual Shutter Speed	1/30 ▾
Sens Up	Off ▾
Agc	10 (Default:10, 0 ~ 10)

- **Brightness:** Select the brightness of image between 0 and 20.
- **Shutter:** Select the shutter mode .
- **Lens ELC Mode:**
 - **Normal:** Use the default mode of ELC.
 - **Deblur:** Increase the image sharpness

- **Lens ALC Mode:**
 - **Indoor:** Select if the camera is installed indoors.
 - **Outdoor:** Select if the camera is installed outdoor.
 - **Deblur:** Increase the image sharpness
- **Manual Shutter Speed:** Select shutter speed.
- **Sens Up:** Select Maximum Sens Up level, based on selected maximum Sens Up level, lowering the shutter speed of the camera in low light conditions automatically.
- **Agc (Auto Gain Control):** Select Maximum AGC (Auto Gain Control) level. Based on Selected AGC Max Gain, amplifies the video signal to make the screen brighter in low light conditions automatically. In the higher gain level, video noise may be increased.

Back Light

Lens		Exposure		Back Light		Day & Night		White Balance		Image	
BackLight Mode		Off	▼								
Hlc Level		10		(Default:10, 0 ~ 20)							
Hlc Mask Color		Black	▼								
Blc H-Pos		8		(Default:8, 0 ~ 20)							
Blc V-Pos		7		(Default:7, 0 ~ 20)							
Blc H-Size		3		(Default:3, 0 ~ 20)							
Blc V-Size		3		(Default:3, 0 ~ 20)							
WDR Weight		Middle	▼								

- **BackLight Mode:**
 - **OFF:** Disable Backlight features.
 - **HLC (Highlight Compensation):** Make masking to the high lighting area, like car head lighting.
 - **BLC (Backlight Compensation):** BLC allows the camera to adjust the exposure of the entire image to properly expose the subject in the foreground.
 - **WDR (Wide Dynamic Range):** WDR (Dynamic Contrast) can improve the exposure when there is a considerable contrast between light and dark areas in the image. Enable WDR in intense backlight conditions.
- **Hlc Level:** Select the HSBLC sensitivity level between 0 and 20.
- **Hlc Mask Color:** Select color of the HLC masking area.
- **Blc H-Pos:** Set the horizontal starting point for BLC area.
- **Blc V-Pos:** Set the vertical starting point for BLC area.
- **Blc H-size:** Set the width of BLC area.
- **Blc V-Size:** Set the height of BLC area.
- **WDR Weight:** Select the WDR sensitivity in WDR mode

Day & Night

Lens		Exposure		Back Light		Day & Night		White Balance		Image	
Day & Night Mode		Extern	▼								
Anti Saturation		10		(Default:10, 0 ~ 20)							
AGC Threshold		10		(Default:10, 0 ~ 20)							
AGC Margin		10		(Default:10, 0 ~ 20)							
Delay		Low	▼								
Extern S/W		<input checked="" type="radio"/> High		<input type="radio"/> Low							
Day to Night Threshold		13		(Default:13, 0 ~ 20)							
Night to Day Threshold		7		(Default:7, 0 ~ 20)							

- **Day & Night Mode:**
 - **Auto:** Automatically converts the Day & Night mode depending on the amount of light.
 - **Color:** Color Mode
 - **B/W:** Black and White Mode

- **EXT:** Automatically converts the Day & Night mode depending on the built-in IR operation.
- **Anti-Saturation:** set the sensitivity level of anti-saturation which prevent the image saturation by IR reflection.
- **AGC Threshold:** Set AGC Threshold level.
- **AGC Margin:** Set AGC margin Level.
- **Delay:** Select the delay time. The day and night mode changes after the delay time when day and night mode switching conditions are met.
- **Extern S/W:** Select the switching mode of CDS.
 - **Low:** The Voltage changes low to high when CDS sensor covered.
 - **High:** The Voltage changes high to low when CDS sensor covered.
- **Day to Night Threshold:** Set the Day to Night mode transition sensitivity. Select between 1 and 32, and lower the value the earlier the transition point.
- **Night to Day Threshold:** Set the Night to Day mode transition sensitivity. Select between 1 and 32, and lower the value the earlier the transition point.

White Balance

Lens	Exposure	Back Light	Day & Night	White Balance	Image
White Balance Mode	Auto	▼			
Preset	Start				
Kelvin	3000K	▼			
Manual RGain	10		(Default:10, 0 ~ 20)		
Manual BGain	10		(Default:10, 0 ~ 20)		
Color Gain	10		(Default:10, 0 ~ 20)		
DNR Level	Middle	▼			

- **White Balance Mode:**
 - **Auto:** Adjust white and gray-scale parameters in video, based on the color temperatures of the viewed scene automatically.
 - **Preset:**
 - **Manual:** Adjust white balance by changing red, blue, color gain and Kelvin values manually.
- **Preset:** Adjust white balance by changing color gain value.
- **Kelvin:** Select color temperature for adjusting white balance manually.
- **Manual RGain:** Select red gain for manual white balance.
- **Manual BGain:** Select blue gain for manual white balance.
- **Color Gain:** Select color gain for preset or manual white balance.
- **DNR Level:** Select digital noise reduction level.

Image

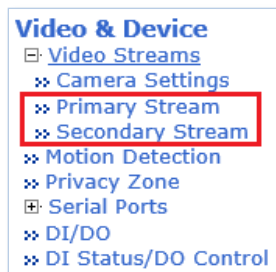
Lens	Exposure	Back Light	Day & Night	White Balance	Image
Sharpness	5		(Default:5, 0 ~ 10)		
Gamma	0.55	▼			
Mirror	<input checked="" type="radio"/> Off <input type="radio"/> On				
Flip	<input checked="" type="radio"/> Off <input type="radio"/> On				
D-Zoom	0		(Default:0, 0 ~ 70)		
D-WDR	Off	▼			
Defog	<input checked="" type="radio"/> Off <input type="radio"/> On				
Defog Mode	<input type="radio"/> Manual <input checked="" type="radio"/> Auto				
Defog Level	High	▼			
Shading	<input checked="" type="radio"/> Off <input type="radio"/> On				
Shading Weight	100		(Default:100, 0 ~ 100)		
Color Bar	<input checked="" type="radio"/> Off <input type="radio"/> On				

- **Sharpness:** Select the sharpness of image between 0 and 10.
- **Gamma:**
- **Mirror:** Flips the video images to the left or right.
- **Flip:** Flip the video images up or down.
- **D-Zoom:** Select whether to use digital zoom feature or not.
- **D-WDR:** Select Digital Wide Dynamic Range level to use D-WDR feature, or disable it.
- **Defog:** Through the defogging function, camera can automatically recognize fog concentration of the image, defog, self-correct in hazy, rainy, flue gas and other inclement weather to get a clear image.
- **Defog Mode:** The camera will automatically correct image according to the defogging level set by the user.
- **Defog Level:** The camera will adjust the definition of the image according to user's preferences through the defogging level.
- **Shading:** Corrects dark areas of the image.
- **Shading Weight:** Select the shading weight between 0 and 100.
- **Color Bar:** Display color bar on the screen.

5.1.2 Primary Stream / Secondary Stream / Tertiary Stream

For the following camera models:

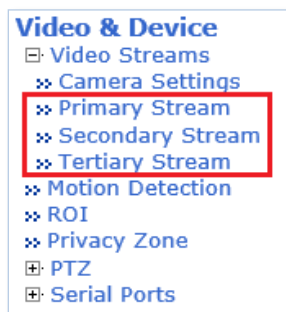
[Dual Stream Camera Models and FW3170 encoder]



Dual stream allows you to take advantage of two different streams from an IP camera. Primary stream can be high definition video for recording, while the Secondary stream can be a lower resolution for live display or supporting mobile. This allows for the NVR server or Clients to display more cameras while utilizing lower bandwidth and less CPU usage.

For the following camera models:

[Triple Stream Camera Models]



Triple stream has the advantage of dual-stream, and It is applicable to various networks, regardless of network bandwidth as high or low.

The Video Stream Configuration Menu will be displayed depending on the Compression Type and Rate Control Mode the user set as shown below.

H.264

Camera Name	Primary Stream	
H.264 Profile	<input type="radio"/> Base <input type="radio"/> Main <input checked="" type="radio"/> High	
Rate Control Mode	CBR Mode ▾	
Target Bitrate	4.0 Mbps ▾	
GOP Structure	16	[1~64]

MJPEG

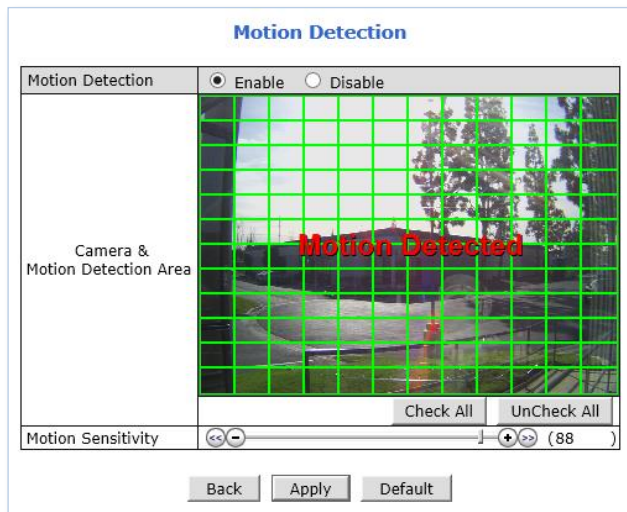
Camera Name	Primary Stream	
Image Quality	High ▾	

- **Camera Name:** Enter the name of the Stream or channel up to 21 alphanumeric or up to 10 Unicode characters.
- **Rate Control Mode:**
 - **VBR (Variable Bit Rate):** VBR allows higher quality images regardless of the amount of bandwidth used.
 - **Image Quality:** Select the image quality
 - **Available Image Quality:** Lowest, Low, Normal, High, Highest, Low Compression (Best Quality).
 - **CBR (Constant Bit Rate):** CBR allows the user to fix the bit rate stream, regardless of scene activity, complexity and resolution.
 - **Bit Rate Control:** Select the constant bit rate.
 - **Available Bitrate:** 32Kbps, 64Kbps, 128Kbps, 256Kbps, 512Kbps, 1.0Mbps, 1.5Mbps, 2.0Mbps, 3.0Mbps, 4.0Mbps, 5.0Mbps, 6.0Mbps, 8.0Mbps, 10Mbps, 12Mbps

- **GOP Structure:** The GOP value determines the sum total of P-frames and I-frames in a GOV. Setting the GOV-length to a high value saves considerably on bandwidth, but there may be noticeable image decay.

5.2 Motion Detection

Motion detection feature is enabled by default for all areas.



To disable the motion detection feature, Select **Disable** for the motion detection and click **Apply**.

To modify the motion detection area, please follow the steps below:

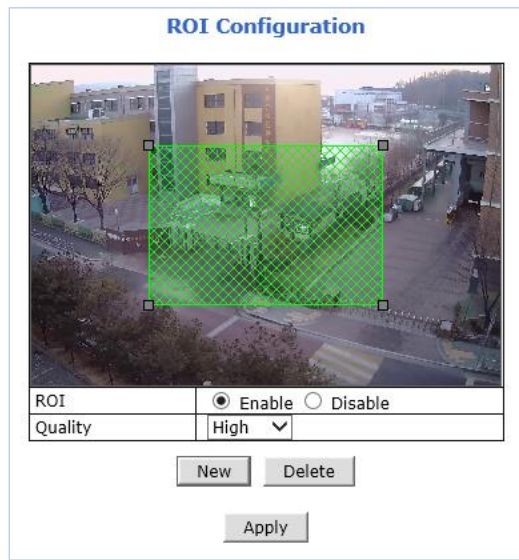
- 1) **Click** on any box in side scene to take out that area from motion detection.
 - Green Box: Motion Detection Area
 - Red Box: Excluded Area
- 2) Adjust **Motion Sensitivity** between -100 and 100. 100 is the most sensitive.
- 3) Click **Apply**.

5.3 ROI (Region of Interest)

ROI feature allows the cameras to decrease non-ROI's image quality to save on maximum bandwidth and storage. These regions of interest will be smartly transmitted with better detail and image quality under identical bit rate streaming conditions.

To add a **Region of Interest**, please follow the steps below:

- 1) **Enable** ROI feature
- 2) Click **New**
- 3) Click **Green box** as shown below



- 4) When selected green box turns red, **set Region of Interest** as follows:
 - **Resize**- Click and hold any corner and drag to desired size
 - **Relocate**- Click and hold anywhere inside the box and drag to desired location



- 5) Select the **Quality** for region of interest

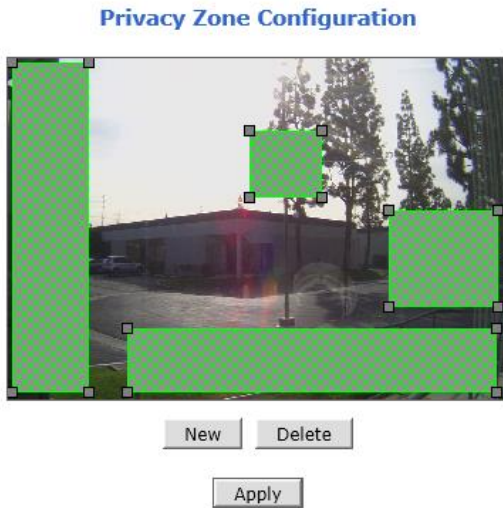
6) Click **Apply**

To delete a region of interest, select the region and click **Delete** followed by **Apply**.

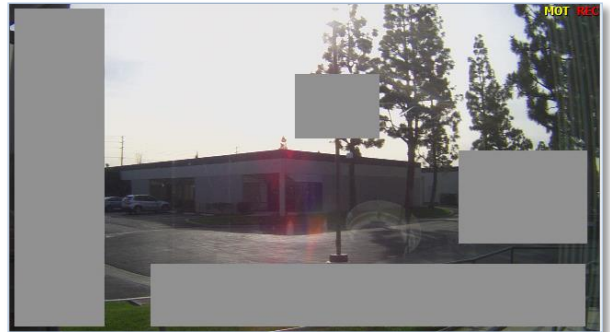


5.4 Privacy Zone

Up to 8 privacy zones can be setup by users if certain parts of the screen need to be unmonitored.



Privacy Zone Configuration Page



Live View

To add a privacy zone, please follow the steps below:

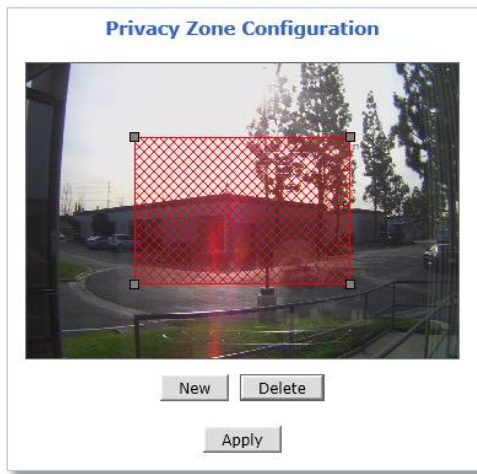
7) Click **New**

8) Click **Green box** as shown below



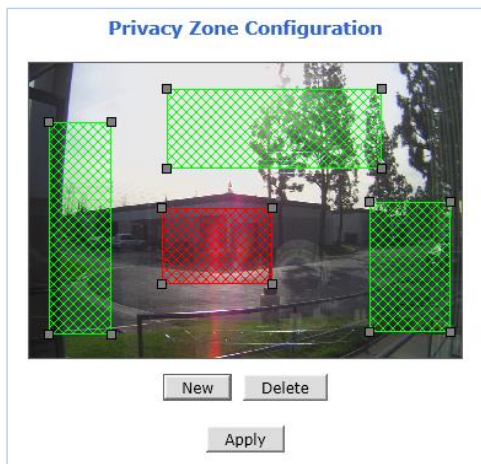
9) When selected green box turns red, **set Privacy Zone** as follows:

- **Resize-** Click and hold any corner and drag to desired size
- **Relocate-** Click and hold anywhere inside the box and drag to desired location



10) Click **Apply**

To delete a privacy zone, select the zone and click Delete followed by Apply.



5.5 Serial Ports

Any FlexWATCH® device that support serial ports has built-in COM and AUX port. These ports are used to communicate with external devices.

Generally, the COM port is used to console connection and AUX ports is used to PTZ connection.

5.5.1 Serial Input Mode

The FlexWATCH® device can be received data from the external device as an event in the Serial Input Mode. When event is occurred from the external device, the FlexWATCH® device can transmit received data with video images via email or FTP.

To configure **Serial Input Mode**, please follow the steps below:

Select **Serial Port** under Device Configuration menu on Web Admin Page as shown below.

Serial Ports Configuration

COM Port	Serial Input
AUX Port	PTZ

Back Apply

Please click below link to configure more details.

Serial Input Mode	When COM or AUX port is connected to serial input device.
Serial Output Mode	When COM or AUX port is connected to serial output device.
Transparent Mode	When COM or AUX port is connected to UART device.
PTZ Mode	When COM or AUX port is connected to PTZ devices.

- 1) Select Serial Input for **COM** or **AUX** port and click **Apply**.

Note:

COM Port: Console / Serial Input / Serial Output / Transparent (by pass)

AUX Port: PTZ / Serial Input / Serial Output / Transparent (by pass)

- 2) Click **Reboot** when reboot message appears as shown below.

Reboot

The function you configured requires system reboot to apply. System reboot should be done at any time before you exist the Admin window. System reboot takes a minute. Thus, if you want to reboot the system later on after you configure all other setting, please click other configuration menu in the Admin window.

Reboot!!

- 3) When reboot is completed, login to the **Web Admin Page** again.

- 4) Go to Device Configuration -> Serial Ports -> **Serial Input Mode**.

Serial Input Mode Configuration

Select the serial input device supported by the system.

Current Port	COM
Current Protocol	RS232
Serial Input Model	Not Installed ▼

- 5) Select a **Sensor Model** from the Serial Input Model drop down menu.
- 6) Enter the **sensor information** if necessary.
- 7) Click **Apply** to finish.

*Note: For other than listed sensor or input unit, please contact our technical support team.
Integration process may require.*

5.5.2 Serial Output Mode

Specific commands can be sent from the FlexWATCH® device to UART (Universal Asynchronous Receipt and Transmission) device via RS-232 or RS-485/422 in the Serial Output Mode.

The FlexWATCH® device can be control UART devices such as Multiplexer, Access control system, any devices using X10 or Z256 Protocol.

Serial Output Mode Configuration

Current Port	None
Line Mode	RS-232 ▼
Baud Rate	38400 ▼
Data Bit	8 ▼ bit
Stop Bit	1 ▼ bit
Parity Bit	None ▼
Mode	<input checked="" type="radio"/> By-Pass <input type="radio"/> X10 <input type="radio"/> Z256

To configure Serial Output Mode, select proper setting values and click **Apply**.

5.5.3 Transparent Mode

RS-485/422/232 data from the external device can be by passed to IP client or server through Ethernet in the transparent mode. IP Client/Server also allows controlling the external RS-485/422/232 device via FlexWATCH® device.

Transparent Mode Configuration	
Current Port	None
Line Mode	RS-485 ▼
Baud Rate	9600 ▼
Data Bit	8 ▼ bit
Stop Bit	1 ▼ bit
Parity Bit	None ▼
Network Protocol	UDP ▼
Peer IP	127.0.0.1
Network Port	32000 (Default:32000, 10000 ~ 65535)
Data Start Pattern	<input type="checkbox"/>
Data Size	0

To configure **Transparent Mode**, please follow the steps below:

- 1) Select **connection type** from the drop down menu of Line Mode.
- 2) Select **connection speed** from the drop down menu of Baud Rate.
- 3) Select **Data** and **Stop Bit** size.
- 4) Select **Parity Bit** type.
- 5) Select **Network Protocol**.
- 6) Enter **Server/Client IP** in the Peer IP field.
- 7) Enter **Data Start Pattern** if necessary.
- 8) Enter **Data Size** per packet if necessary.
- 9) Click **Apply** to finish.

5.5.4 PTZ Mode [for FW3170 / FW1173 / FW1175 / FW1176 Models only]

PTZ cameras or receivers can be controlled via AUX port in PTZ mode.

PTZ Mode Configuration		
Current Port	AUX	
Dummy Data	<input type="radio"/> On <input checked="" type="radio"/> Off	
Current Protocol	RS485 ▼	
Current Baudrate	9600 ▼	
PTZ Model	Built-in PTZ ▼	
Base Address (0~255)	PTZ Install Flag	
	Ch 1	Ch 2
0	<input checked="" type="checkbox"/>	<input type="checkbox"/>

To configure **Serial Input Mode**, please follow the steps below:

- 1) Select connection type from the **Current Protocol** drop down menu.
- 2) Select connection speed from the **Current Baud rate** drop down menu.
- 3) Select PTZ protocol from the **PTZ Model** drop down menu.
- 4) Enter **Base Address** to assign PTZ ID to the camera channels
ID number for each channel will be assigned by sum of base address and channel number.
- 5) Check the desired **channel number(s)** to connect with PTZ
- 6) Click **Apply**

Note: Protocol (PTZ Model), Baud rate, ID number should be matched on both PTZ and FlexWATCH® device.

FlexWATCH® Supports 58 PTZ Protocols which are follows (firmware version 4.28):

Pelco-D-AUX : Spectra Dome	FINE : CPR-1600I
Pelco-P-AUX : Spectra Dome	Dongyang : DY-xxxx
Seyeon Tech : SRX-500/SPT-102	Bosch : Auto Dome
Seyeon Tech : FSD-230/270	Sungjin : SJ2000/SJ3000RX
Seyeon Tech : FSD-301	Honeywell : HRX-2000
ELMO : ELDOME	Inter-M : VRX2201
SANTEC : Santec Dome	LG : Speed Dome
Honeywell : HSDN-230/251(H)	LILLIN : PIH7000
Honeywell : HSDN-230/251(P)	Yujin : YRX-5000S
SAMSUNG : SCC641/643A	INTPLUS : Pelco-P PTZ1
SAMSUNG : SCC641/643A(RS422)	VICON : V-1311RB-600
SAMSUNG : MRX-1000	Pelco-D : SK-D106
VICON : V-1311RB	Pelco-D : Yujin
VICON : Surveyor-1000/2000	Pelco-D :-AUX : HUVIRON
SAMSUNG Techwin : SPD1600	Pelco-P-AUX : ONE KING
SAMSUNG Techwin : SRX-100B	Pelco-D-AUX : Probe
SAMSUNG Techwin : SRX-100-R	Honeywell : HSDN-P 251(H)
American Dynamics : DELTA DOME	Dong Yang : DMax Series
KALATEL : CYBER DOME(KTA-xxxx)	Pelco-D-AUX : Neo IR Dome
Panasonic : WV-CS854	RVT : EX Series
SONY : EVI-D30	Panasonic : WV-CW864A
CANON : VC-C4	E-ronix : Pelco-D
RNK : RNK-DOME	SONY : VISCA
ERNITEC : BDR-510	Pelco-D-WW-MD : Spectra Dome
Inter-M : VSD-640/625L	Sungjin : SJ2819RX3
Seyeon Tesh : SMP001	Convex : CXD Series
GPI360 : VISCA	Pelco-D-AUX : Convex
Pelco-D-AUX : YOUGUAN CCTV	Pelco-D-AUX : HANKOOK CTEC
Pelco-D-Wonwoo IR : Sprectra Dome	Pelco-D-AUX : Cynix

5.6 DI (Sensor Input) / DO (Alarm Output)

Depending on the number of DI ports supported, the numbers of ports that can be set are different as shown below, but the setting method is same for all models.

DI(Sensor Input) / DO(Alarm Output) Setup		
No	Sensor Input Name	Alarm Output Name
1	Di 1	Do 1

No	Sensor Input Type	Alarm Output Type
1	<input type="radio"/> Normal Open <input checked="" type="radio"/> Normal Close	<input checked="" type="radio"/> Normal Open <input type="radio"/> Normal Close

Example:
DI/DO 1 Port Models

To setup DI/DO port, please follow the steps below:

- 1) Enter **Sensor Input Name** and/or **Alarm Output Name** to the desired DI port number.
(Up to 31 alphanumeric or 15 Unicode characters can be used for server name)
- 2) Select **Sensor Input Type** and/or **Alarm Output Type**.
 - Normal Open Type: Normal is OPEN, and goes CLOSED when triggered by an event.
 - Normal Close Type: Normal is CLOSED, and goes OPEN when triggered by an event.
- 3) Click **Apply**.

Note: Make sure the type of the sensor and use it correctly to the type. If a Sensor Input is not used, it must be set to Normal Open Type to avoid a false input.

5.7 DI Status / DO Control

Depending on the number of DI ports supported, the numbers of ports that can be controlled are different as shown below, but the controlling method is same for all models.

DO(Alarm Output) Control	
DO(Alarm Output) Port Number	On / Off
1	<input type="button" value="On"/> <input type="button" value="Off"/>

DI(Sensor Input) Status	
DI(Sensor Input) Port Number	
1	<input checked="" type="checkbox"/>

Example:
DI/DO 1 Port Models

External device that connected with the DO (Alarm Output) port can be tested as picture above.

- Click **On** to operate the external device connected with DO port.
- Click **Off** to stop operating the external device.

DI (Sensor Input) Status shows Sensor Status as shown picture above.

The check mark in the box indicates that the DI (Sensor Input) is activated. If there is no check mark in the box, means the DI is not activated.

6. Recording

Depending on FlexWATCH devices, HDD or SD card can be installed for video recording and playback. Recording conditions and storage related setting are available in this menu section.

Note: The maximum number of installable hard disk and maximum capacity available may vary depending on the NVR models.

6.1 Disk Setting

Recording storage related settings and information can be found here.

Note: A newly installed HDD or SD card must be initialized or formatted in the Disk Setting menu. All the HDD or SD card data will be deleted after the disk initializing or formatting.

6.1.1 Disk Status & Format

Depending on current disk status, the Disk Status & Format page will be displayed as follows:

- No SD: Micro SD card is not installed or recognized. Make sure that the Micro SD card is installed properly.

Disk Status & Format (Normal)	
SD	Status
1st SD	No SD

No SD

- Unformatted: Micro SD card is not formatted. A newly installed Micro SD card must be formatted.

Disk Status & Format (Normal)	
SD	Status
1st SD	Unformatted

Unformatted

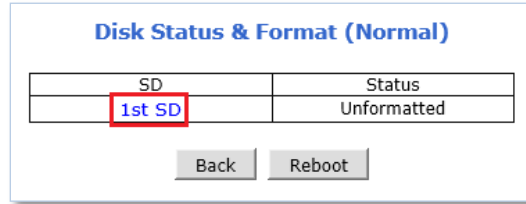
- Formatted: Micro SD card is ready for recording or under recording now.

Disk Status & Format (Normal)	
SD	Status
1st SD	Formatted

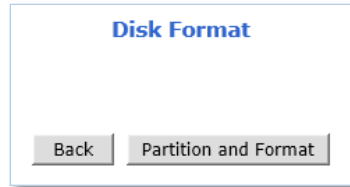
Formatted

To initialize or format the Micro SD card, please follow the steps below:

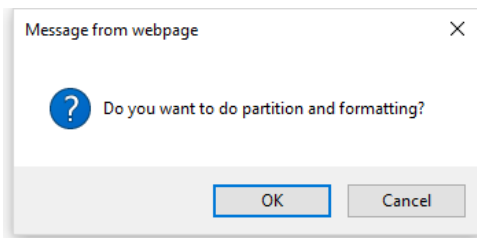
- 1) Click desired **Micro SD card** to format



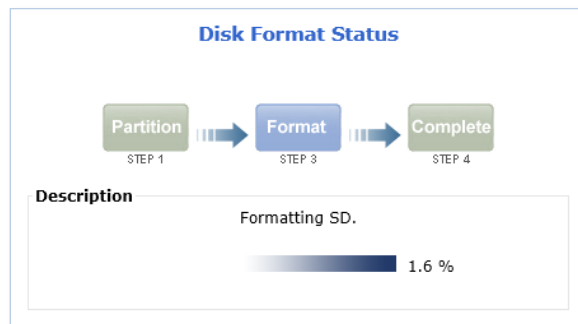
- 2) Click **Partition and Format**



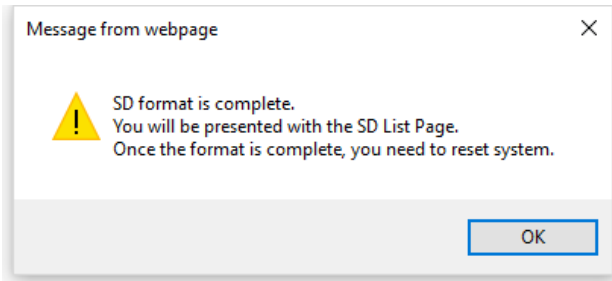
- 3) Click **OK** to continue when confirmation window appears



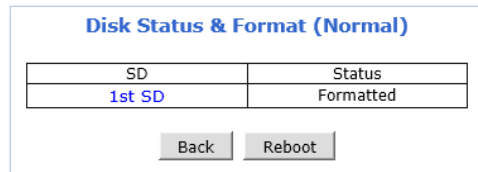
Warning: Do not leave HDD format Status page during the formatting. If an abnormal termination is happened during the formatting process, it is possible for the hard drive to be defected. Make sure to complete the process properly.



- 4) When done, click **OK** to finish formatting



- 5) Check the current status "**Formatted**" as shown below

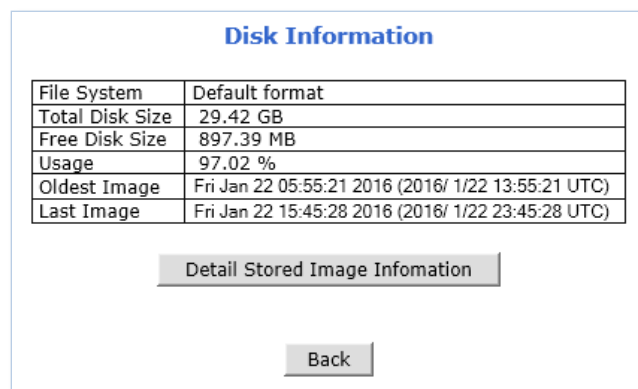


- 6) Click **Reboot**

Note: If the current status is not displaying "Formatted", it is possible for the Micro SD card to be defected. Make sure to complete the process properly.

6.1.2 Disk Information

Detailed information of the installed Micro SD card can be found in Disk Information page as shown below.



- **File System:** Display current file system
- **Total Disk Size:** Display the capacity of the storage
- **Free Disk Size:** Displays the remaining capacity of the storage
- **Usage:** Display the storage usage
- **Oldest Image:** Shows the creation time of the oldest image files stored in the storage
- **Last Image:** Shows the creation time of the latest image files stored in the storage

6.1.3 Disk Circulation

The installed Micro SD card can be set whether or not to overwrite.

- **Circulation:** Overwrites old recorded data when the installed Micro SD card is full.
 - **Restriction Duration:** Record data only in the configured period and delete after the period.
 - **Pause at full:** Stops recording when the storage is full, and display STOP in the status as shown below.

6.1.4 Disk Status Report

Current status of the installed Micro SD card can be reported by email periodically or in the set conditions.

To setup the storage statuses Report, please follow the steps below:

- 1) Set **Report conditions** as explained below

- **Disk Full Notification:** when the Micro SD card is full, notify by email.
- **Periodic Notification:** at a specified time, notify the Micro SD card status by email.
- **Disk Error Notification:** when the disk error occurred, notify by email.

- 2) Enter your **SMTP server** address
- 3) If your SMTP server requires **user authentication**, select Enable for Authentication Login and enter the user ID and Password for your SMTP server
- 4) Enter your **email address** in Sender field, which will show the message was sent from the FlexWATCH® device as a notification
- 5) Enter the **email addresses** of recipients up to 3 addresses
- 6) In the User-Defined Message box, you may enter any messages that will include with notification email
- 7) Click **Apply**

6.2 Recording Setting

Depending on number of video channels or streams supported, the Recording Setting page will be displayed as follows:

Note: The procedure of recording setting is same for all streams or channels.

Recording Setting

Please **click camera name** to configure Recording condition.

Recording Setting						
VS Module ID (IP Devices)	Name	IP Address	Port	Vendor	Camera Name	REC. Config.
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	Primary Stream	Disable
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	Secondary Stream	Disable

Example:
Dual Streams Camera Models.

Recording Setting

Click a camera name to configure the recording conditions.

Recording Setting						
VS Module ID (IP Devices)	Name	IP Address	Port	Vendor	Camera Name	REC. Config.
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	Primary Stream	Disable
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	Secondary Stream	Disable
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	Tertiary Stream	Disable

Notice : To start recording with the new configurations, click the "Apply" button. Otherwise, recording with the new configurations will not start even if the recording configurations are correctly set up.

Example:
Triple Streams Camera Models.

To configure the recording, please follow the steps below:

- 1) Click on the **Camera Name** of the desired channel to record

Recording Setting

Click a camera name to configure the recording conditions.

Recording Setting						
VS Module ID (IP Devices)	Name	IP Address	Port	Vendor	Camera Name	REC. Config.
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	Primary Stream	Disable
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	Secondary Stream	Disable

Recording

- 2) Click the first **Not Used Condition**

Recording Setting (VS Module ID 0, Camera 1)

» Display current recording settings
Click a link below to configure the recording conditions.

» [Condition 1 \[Not Used\]](#)

» [Condition 2 \[Not Used\]](#)

» [Condition 3 \[Not Used\]](#)

» [Condition 4 \[Not Used\]](#)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Sun																								
Mon																								
Tue																								
Wed																								
Thu																								
Fri																								
Sat																								

	1	2	3	4		1	2	3	4
Alarm Sensor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Camera Connected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motion Detection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Camera Disconnected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Common Alarm Sensor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	External Input Data	<input type="checkbox"/>			

■ Always
 ■ Schedule
 ■ Schedule and Event

Recording Service	<input checked="" type="radio"/> Enable <input type="radio"/> Disable		
Server Module ID	0	Camera Number	1
Camera Name	Primary Stream		
Pre-Alarm Images	0	Post-Alarm Images	0
Pre-Alarm Speed	fastest	Post-Alarm Speed	fastest

Note: Up to 4 conditions can be set.

If multiple conditions are set, recording starts when any one or more conditions meet. (Logical OR)

- 3) When the condition page appears, **Enable** the selected Condition

4) Select **Mode**

Select Mode	<input type="radio"/> Always
	<input type="radio"/> Schedule Only
	<input checked="" type="radio"/> Event Only
	<input type="radio"/> Schedule and Event

- Always: [Please do not use this mode for Email notification.]
- Schedule Only: [Please do not use this mode for Email notification.]
- Event Only: Send email when selected event occurred
- Schedule and Event: Send email when selected event occurs in specified time

5) Specify the **Recording Schedule** if necessary

Schedule							
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Week	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Time (hh:mm)	09 : 00		~	17 : 00			
<input type="checkbox"/> Date (mm/dd)	XX / XX		~	XX / XX			

6) Select **Event Type**

Event				
	1	2	3	4
Alarm Sensor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motion Detection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External Input Data	<input type="checkbox"/>			
Camera Connected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Camera Disconnected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Boot Finished	<input type="checkbox"/> Enable			
Serial Input	<input type="checkbox"/> Activated			

- Event will be triggered by the followings:
 - Alarm Sensor (Alarm Input)
 - Motion Detection
 - External Input Data such as POS.
 - Camera Connection
 - Connected
 - Disconnected
 - Boot Finished
 - Serial Input

7) Click **Save**

<input type="button" value="Back"/>	<input type="button" value="Save"/>
-------------------------------------	-------------------------------------

- 8) When the following page appears, check the summary in the purple box as shown below.

Recording Setting (VS Module ID 0, Camera 1)

※ Display current recording settings
Click a link below to configure the recording conditions.

※ Condition 1 [MON,TUE,WED,THU,FRI,][09:00~17:00]
[M1,M2,]

※ Condition 2 [SUN,SAT,]

※ Condition 3 [Not Used]

※ Condition 4 [Not Used]

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Sun																							
Mon																							
Tue																							
Wed																							
Thu																							
Fri																							
Sat																							

	1	2	3	4		1	2	3	4
Alarm Sensor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Camera Connected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motion Detection	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Camera Disconnected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Common Alarm Sensor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	External Input Data	<input type="checkbox"/>			

Always
 Schedule
 Schedule and Event

Recording Service	<input checked="" type="radio"/> Enable <input type="radio"/> Disable		
Server Module ID	0	Camera Number	1
Camera Name	Primary Stream		
Pre-Alarm Images	0	Post-Alarm Images	0
Pre-Alarm Speed	fastest	Post-Alarm Speed	fastest

Back Save

- 9) **Enable** for the Recording Service
- 10) Set Pre/Post Alarm Images, if necessary

Note: MJPEG Compression Type is required for Pre/Post Alarm Image features.

- 11) Click **Save**
- 12) When the following page appears, make sure the recording configuration is enabled as red box below

Recording Setting

Click a camera name to configure the recording conditions.

Recording Setting						
VS Module ID (IP Devices)	Name	IP Address	Port	Vendor	Camera Name	REC. Config.
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	Primary Stream	Enable
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	Secondary Stream	Disable

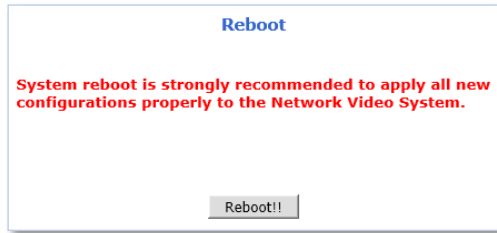
Back Apply

Status **Recording** Stop

- 13) Go to step 1) if recording configuration is needed for other channels
- 14) Click **Apply** when the recording configuration is completed
- 15) Click Record if recording status is "Stop" as shown below

Status **Stop** Record

16) **Reboot** the NVR as shown below



6.3 Recording Profile

Recording Profile shows current recording settings for all channels as shown below.

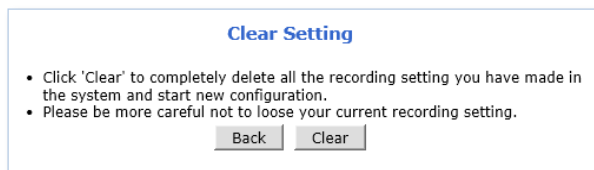
Server	Camera	REC. Config.	Status	Start Date		End Date		Start Time		End Time		Week			
				Month	Day	Month	Day	Hour	Min	Hour	Min	Sun	Mon	Tue	Wed
Built-in Module 0 (Built-in Module 0)	Primary Stream	Enable	<input checked="" type="checkbox"/>	XX	XX	XX	XX	9	0	17	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			<input checked="" type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Secondary Stream	Disable	<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			<input type="checkbox"/>	XX	XX	XX	XX	XX	XX	XX	XX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

6.4 Clear Setting

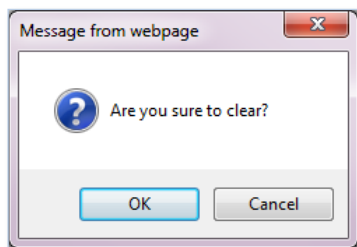
Recording configuration can be deleted or reset for the all channels in this menu.

To clear recording configuration:

1) Click **Clear** to clear or delete recording configuration



2) Click **OK** when confirmation message appears as shown below.

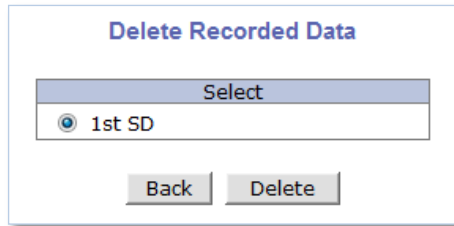


6.5 Delete Recorded Data

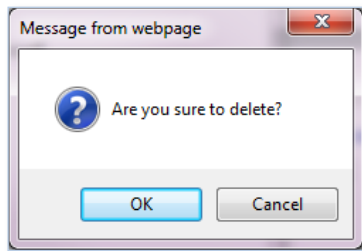
Recorded data in the Micro SD card can be deleted in this menu.

To deleted recorded data in the Micro SD card:

- 1) Select the **storage** to delete recorded data



- 2) Click **Delete** to delete recording data
- 3) Click **OK** when confirmation message appears as shown below



7. Network

All network related settings can be found under the Network Menu.

Video & Device Recording Network ※ IP Address ※ Web Port ※ RTP/RTSP ※ Bandwidth ※ Network Status ※ Network Status Notify ※ DDNS ※ UPnP ※ SNMP ※ HTTPS ※ Zeroconf ※ IP Filtering System Advanced Utilities	Network																								
	This category shows the detailed method for network system.																								
	<table border="1"> <tr> <td>※ IP Address</td> <td>Configuration of Network(IP,Netmask,DNS).</td> </tr> <tr> <td>※ Web Port</td> <td>Modification of HTTP and other application network port numbers.</td> </tr> <tr> <td>※ RTP/RTSP</td> <td>Configuration of RTP/RTSP.</td> </tr> <tr> <td>※ Bandwidth</td> <td>Configuration of bandwidth control.</td> </tr> <tr> <td>※ Network Status</td> <td>View of Network Status.</td> </tr> <tr> <td>※ Network Status Notify</td> <td>It sends IP address by e-mail when IP address is allocated by DHCP(or PPPoE).</td> </tr> <tr> <td>※ DDNS</td> <td>Configuration of dynamic IP registration of Network Video System.</td> </tr> <tr> <td>※ UPnP</td> <td>Configuration of Port Forwarding & UPnP(Universal Plug and Play).</td> </tr> <tr> <td>※ SNMP</td> <td>Configuration of SNMP.</td> </tr> <tr> <td>※ HTTPS</td> <td>Configuration of HTTPS.</td> </tr> <tr> <td>※ Zeroconf</td> <td>Configuration of Zeroconf.</td> </tr> <tr> <td>※ IP Filtering</td> <td>Configuration of ip filtering.</td> </tr> </table>	※ IP Address	Configuration of Network(IP,Netmask,DNS).	※ Web Port	Modification of HTTP and other application network port numbers.	※ RTP/RTSP	Configuration of RTP/RTSP.	※ Bandwidth	Configuration of bandwidth control.	※ Network Status	View of Network Status.	※ Network Status Notify	It sends IP address by e-mail when IP address is allocated by DHCP(or PPPoE).	※ DDNS	Configuration of dynamic IP registration of Network Video System.	※ UPnP	Configuration of Port Forwarding & UPnP(Universal Plug and Play).	※ SNMP	Configuration of SNMP.	※ HTTPS	Configuration of HTTPS.	※ Zeroconf	Configuration of Zeroconf.	※ IP Filtering	Configuration of ip filtering.
	※ IP Address	Configuration of Network(IP,Netmask,DNS).																							
	※ Web Port	Modification of HTTP and other application network port numbers.																							
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※ SNMP	Configuration of SNMP.																								
※ HTTPS	Configuration of HTTPS.																								
※ Zeroconf	Configuration of Zeroconf.																								
※ IP Filtering	Configuration of ip filtering.																								

7.1 IP Address

7.1.1 Static IP

For a Static IP, select **Static IP** and Enter IP information for the device such as IP Address, Subnet Mask (NetMask), Default Gateway (GateWay), DNS 1, DNS 2(Optional) and click Apply to save settings.

IP Address : Static IP		
Static IP <input checked="" type="radio"/> DHCP Client <input type="radio"/> PPPoE <input type="radio"/>		
IP Address	10.0.0.15	
NetMask	255.0.0.0	
GateWay	10.0.0.1	
DNS 1	10.0.0.1	
DNS 2	168.126.63.2	

After selecting **Apply**, program will ask to close web browser for updates, which will take more than 20 seconds to reboot the device. If **Back** button is clicked, all values will be discarded. If **Refresh** button is clicked, the program will load previous values.

7.1.1.1 IPv6

The FlexWATCH® devices support IP version 6 (IPv6).

To use IP version 6, enable the IPv6 service first, and then enter IPv6 IP address and Gateway.

IPv6	
Service	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
IP Address	<input type="text"/> Ex) fec0:1234::abcd:abcd/64
GateWay	<input type="text"/> Ex) fec0:1234::abcd:1
IPv6 Link-Local	fe80::230:6fff:fe84:4d01/64
<input type="button" value="Back"/> <input type="button" value="Apply"/> <input type="button" value="Refresh"/>	

7.1.1.2 Wireless (Wi-Fi)

Wireless setting menu appears at the bottom of network configuration setting page as shown below when the Wi-Fi USB Adapter is attached to the Wi-Fi support camera

IP Address : Static IP

Static IP
 DHCP Client
 PPPoE

IP Address	10.0.0.15	
NetMask	255.0.0.0	
GateWay	10.0.0.1	
DNS 1	10.0.0.1	
DNS 2	168.126.63.2	

IPv6

Service	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	
IP Address	<input type="text" value="Ex) fec0:1234::abcd:abcd/64"/>	
GateWay	<input type="text" value="Ex) fec0:1234::abcd:1"/>	
IPv6 Link-Local	fe80::230:6fff:fe84:4d01/64	

Wireless (Wi-Fi)

ESSID	<input type="text" value="AP-ESSID"/>	<input type="button" value="Scan AP"/>
Auth Mode	<input type="text" value="Open system"/>	
Encryption	<input checked="" type="radio"/> None <input type="radio"/> WEP <input type="radio"/> TKIP <input type="radio"/> AES	

To use Wi-Fi connection, Enter ESSID(SSID) manually or scan and select your Wi-Fi network and then select authentication mode for the wireless network. Wi-Fi encryption method must be correctly applied to connect to the SSID.

Note: If both wired and wireless network are connected, wired network connection will take priority. After the wireless network settings through wired connection, unplug the network cable to connect Wi-Fi. It will take few minutes for initialization.

7.1.2 DHCP Client

A Router providing an automatic DHCP Lease is required in the network for this option.

To use DHCP Client, select DHCP Client and click Apply to save. After **Apply**, program will ask to close web browser for updates, which will take more than 20 seconds to reboot the device.

IP Address : DHCP Client

Static IP
 DHCP Client
 PPPoE

7.1.3 PPPoE

The FlexWATCH® devices can be connected directly to a PPPoE modem provided by the internet service provider usually with Internet Service Providers using DSL Login. To use PPPoE connection, enter User ID and Password for your PPPoE account and click Apply.

IP Address : PPPoE

Static IP
 DHCP Client
 PPPoE

User ID		
User Password		
Confirm Password		

7.2 Web Port

Network or HTTP port is used to access FlexWATCH® devices and data exchange between the FlexWATCH® device (server) and clients if required. The port can be changed any number from 80 to 65535. The default value is 80.

Web Port

HTTP Port	80	(Default:80, 80 ~ 65535)
-----------	----	--------------------------

Note: If the HTTP port number is changed to a different value than default (80), make sure the new HTTP port number goes together with IP address of the FlexWATCH® devices. For example, when an IP address of FlexWATCH® devices is 192.168.1.100 and the HTTP port is changed 8080, you will have to enter http://192.168.1.100:8080 at the address bar on your web browser to connect to the device.

7.3 RTP / RTSP

RTSP (Real-Time Streaming Protocol) is a protocol to transfer video and audio streams over the network and it allows compatibility with other manufactures' VMS/NVR software or video streaming software such as VLC player, Quick Time player.

*For using the FlexWATCH® device as an **ONVIF device**, RTSP service must be enabled.*

To use RTP/RTSP protocol,

RTP/RTSP Setup			
Service	<input checked="" type="radio"/> Enable <input type="radio"/> Disable		
RTSP Port	554	(Default:554, 554 ~ 65534)	
RTP Start Port	5000	(Default:5000, 2048 ~ 65534)	
Packet Size	1	(Default:1, 1 ~ 12)	
Camera 1	Multicast Address	0.0.0.0	Disable:0.0.0.0 (225.0.0.0 ~ 239.255.255.255)
	Multicast Port	0	(Disable:0, 2048 ~ 65534)
Camera 2	Multicast Address	0.0.0.0	Disable:0.0.0.0 (225.0.0.0 ~ 239.255.255.255)
	Multicast Port	0	(Disable:0, 2048 ~ 65534)

- 1) **Enable** RTP/RTSP service
- 2) Enter desired **RTSP** and **RTP Start Port**
- 3) Enter **Packet Size** (Kilobyte)
- 4) Click **Apply**

7.3.1 RTSP URL

FlexWATCH® device support two types of RTSP URL which are Unicast and Multicast.

- Unicast: `rtsp://(Network Video Server IP Address)/cam0_0`
[`cam(0: *VS Module number)_ (0:**Channel/Stream number)`]
- Multicast : `rtsp://(Network Video Server IP Address)/mcam0_0`
[`mcam(0: *VS Module number)_ (0:**Channel/Stream number)`]

Usage

**VS Module number*

Use "0" for:

- Dual Stream Camera Models.
- 1/4 Channel Server (Video Server, NVR Server) Models.

Use "1" for:

- Channel #5~8 on 8Channel Server Models.

***Channel/Stream number*

Use "0" for:

- Primary Stream on Dual Stream Camera Models.
- Channel #1 on 1/4/8 Channel Server Models.
- Channel #5 on 8 Channel Server Models. (VS module ID should be 1)

Use "1" for:

- Secondary Stream on Dual Stream Camera Models.
- Channel #2 on 1/4/8 Channel Server Models.
- Channel #6 on 8 Channel Server Models. (VS module ID should be 1)

Use "2" for:

- Channel #3 on 4/8 Channel Server Models
- Channel #7 on 8 Channel Server Models. (VS module ID should be 1)

Use "3" for:

- Channel #4 on 4/8 Channel Server Models
- Channel #8 on 8 Channel Server Models. (VS module ID should be 1)

7.4 Bandwidth

Bandwidth control is for limiting the maximum network traffic.

If the Bandwidth Control Configuration is enabled, maximum data size transferred from the FlexWATCH® device won't exceed bandwidth limits set by users. If transferred data is exceeded, part of the data will be randomly lost. If multiple users try to access a FlexWATCH® Device when bandwidth control is enabled, users connected to the FlexWATCH® device will share network bandwidth limit.

Bandwidth Configuration

Service	<input type="radio"/> Enable	<input checked="" type="radio"/> Disable	
Bandwidth Limit	<input style="width: 90%;" type="text" value="0"/>	Kbps	

Note: This bandwidth control feature works well in M-JPEG video transmission. But, for H.264, dropping data packets may cause low quality of video, so it is recommended to utilize CBR and frame rate control instead of bandwidth control for H.264 video

Network Bandwidth control is managed by FlexWATCH® device and it drops any data packets when data packets exceeds bandwidth limit, thus you may experience slow connection when this feature is enabled.

7.5 View Network Status

Selecting Network Status will provide details of the FlexWATCH® devices.

If wireless connection is set, wireless connection status will be displayed at the bottom.

Network Status

Common Status

Gateway	<input style="width: 90%;" type="text" value="10.0.0.1"/>
Gateway Device	<input style="width: 90%;" type="text" value="eth0"/>
DNS1	<input style="width: 90%;" type="text" value="10.0.0.1"/>
DNS2	<input style="width: 90%;" type="text" value="168.126.63.2"/>

LAN Status

IP Address	<input style="width: 90%;" type="text" value="10.0.0.15"/>
Netmask	<input style="width: 90%;" type="text" value="255.0.0.0"/>
MAC Address	<input style="width: 90%;" type="text" value="00:30:6F:84:4D:01"/>
IPv6 Link-Local Address	<input style="width: 90%;" type="text" value="fe80::230:6fff:fe84:4d01/64"/>

PPPoE Status

Connection Status	<input style="width: 90%;" type="text" value="Link is down"/>
IP Address	<input style="width: 90%;" type="text"/>
Netmask	<input style="width: 90%;" type="text"/>

Zeroconf Status

IP Address	<input style="width: 90%;" type="text" value="169.254.12.27"/>
------------	--

7.6 Network Status Notify

Network Status can be notified to the administrator by email when

- IP address of the FlexWATCH® device has been changed by DHCP server
- FlexWATCH® device has been connected to a PPPoE Server

Note: This feature is valid only for DHCP or PPPoE connection.

To configure the **Network Status Notify** feature, please follow the steps below:

Network Status Notification	
Mail Notification	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
SMTP Server	<input type="text"/>
Authentication Login	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
User ID	<input type="text"/>
Password	<input type="text"/>
Sender	<input type="text"/>
1st Recipient	<input type="text"/>
2nd Recipient	<input type="text"/>
3rd Recipient	<input type="text"/>
===== User-Defined Message =====	
<input type="text"/>	
<input type="text"/>	
<input type="text"/>	
<input type="text"/>	
<input type="button" value="Back"/> <input type="button" value="Apply"/>	

- 1) Select **Enable** to use Mail Notification feature
- 2) Enter the **SMTP server** address
- 3) If the user authentication is required by SMTP server, select **Enable** for Authentication Login and enter the **user ID** and **Password** for the SMTP server
- 4) Enter an email address of the **Sender** in Sender field, which will be appeared as the sender in notification email
- 5) Enter an email address of recipient (up to 3 email addresses are available)
- 6) In the **User-Defined Message** box, please enter any messages that will be included within the notification email
- 7) Click **Apply**

7.7 DDNS

IP-CCTV DNS™ (As known as DDNS service) provides a domain name to connect to a remote site. DDNS is used when the Internet Service Provider is using a Dynamic IP address that is always changing every two to three months.

To activate IP-CCTV DNS™ service, please follow the steps below:

Service	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
DNS Server IP	<input type="text" value="www.ipcctvdns.com"/> <input type="button" value="Go"/>
Mac Address	<input type="text" value="REDACTED"/>
Product-Key	<input type="text" value="REDACTED"/>
IP-CCTV DNS Registration verification	<input type="button" value="Confirm"/>

- 1) Select **Enable** to use IP-CCTV DNS™ service
- 2) Click **Go** to go to IP-CCTV DNS™ web site or go to www.ipcctvdns.com directly through the web browser

IP-CCTV DNS Server

IP-CCTV DNS is designed for Dynamic-IP users specially with

- IP Camera
- NVR (Network Video Recorder)
- NVS (Network Video Server)

User Group

ID:

Password:

[Forgot Your Password?](#)

- 3) Click **Sign Up** to create an account if you do not have one
If you have one, proceed from the step 6
- 4) Select "I Agree" and click **Next** as shown below

IP-CCTV DNS Server

Sign Up

Agreement

IP-CCTV DNS Service Agreement

1. If an access more than three months, IP-CCTV DNS's administrator may delete or edit the registered information at discretion.
2. By the extension of any new value-added features at IP-CCTV DNS, a few of them may become pay services.

I Agree I do not Agree

- 5) Enter the information requested such as ID, Password and Name, and then click Apply to finish

The screenshot shows the 'Sign Up' page for the IP-CCTV DNS Server. The page has a blue header with the logo and 'IP-CCTV DNS Server'. Below the header, the title 'Sign Up' is displayed. The main content area is titled 'Membership' and contains a registration form. The form fields are: ID (E-Mail) with a 'check' button, Password, Confirm Password, Name, Company, Telephone, Mobile Phone, Address, Country (a dropdown menu labeled 'Select Country'), and Description. At the bottom of the form, there are 'Apply' and 'Reset' buttons.

- 6) **Login** to the IP-CCTV DNS™ with the ID and password
 7) Click on **Product Registration** on Top Menu as shown below

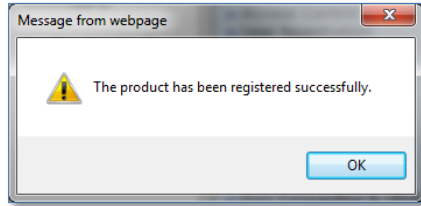
The screenshot shows the 'Product List' page. The top navigation bar has 'sean Login', 'Product Registration' (highlighted with a red box), 'Product List', 'My Info', and 'Log Out'. The main content area is titled 'Product List' and has a sub-header 'Product List - Simple Information' and a 'Detail Information' button. Below this is a table with the following columns: Num, Name, Mac Address, External IP, External Port, Internal IP, Internal Port, and DDNS Host Name. The table is currently empty, and a message says 'There is no result.' Below the table is a search bar with a 'Name' dropdown and a 'Search' button. A 'Notice' section below the search bar states: 'Detailed information of products are seen by clicking 'Detail Information' in the upper right and Editing & deleting product information is available.'

- 8) Enter the information requested (Camera Name, MAC Address, Product Key) and Click Apply as shown below

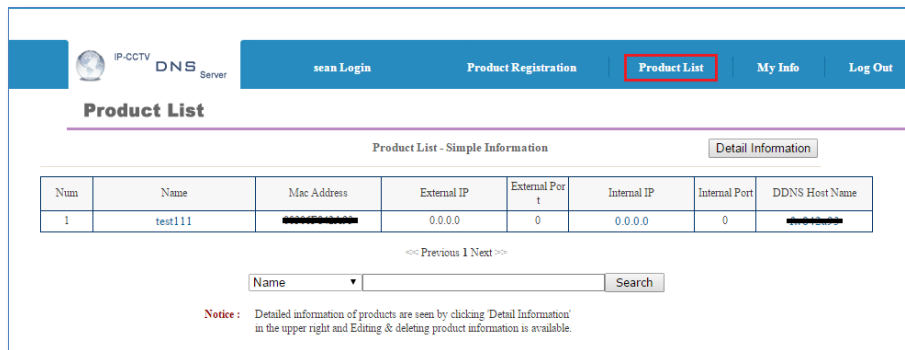
The screenshot shows the 'Product Registration' page. The top navigation bar has 'sean Login', 'Product Registration', 'Product List', 'My Info', and 'Log Out'. The main content area is titled 'Product Registration' and has a sub-header 'Product Registration'. Below this is a form with three input fields: Name, Mac Address, and Product-Key. Below the form is a 'Notice' section with the following text: '* Input Product Name up to 30 characters that you prefer. (If skip, it will be automatically filled with the default model name of the product.)' and '* Mac Address & Product-Key are mandatory to input. Find the information from - Admin-menu => IP-CCTV DNS™ Setup, OR - Label attached to products with Serial No. & Product key No.' At the bottom of the form, there are 'Apply' and 'Reset' buttons.

Note: Mac Address and Product Key will be available at the sticker on the FlexWATCH® device or on the IP-CCTV DNS™ setting page under Network Configuration Menu of the Web Admin Page.

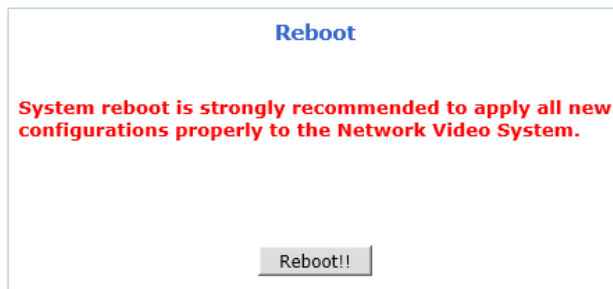
- 9) Click **OK** to confirm that the device has been registered successfully as shown below



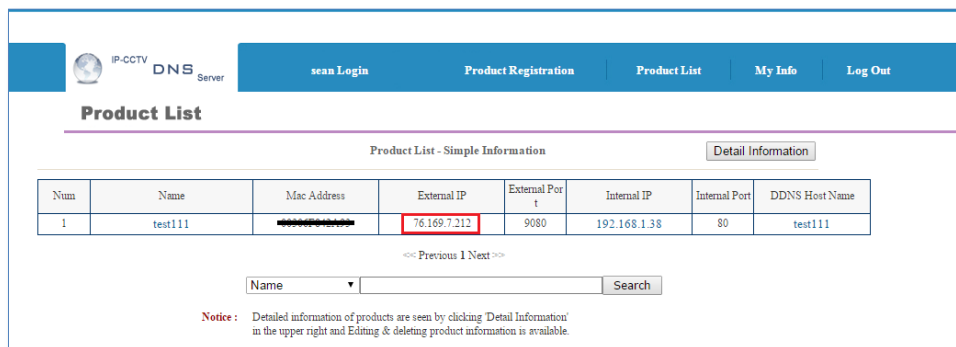
- 10) Click **Product List** as shown below



- 11) **Reboot** the FlexWATCH® device at Reboot page under Utilities menu of the Web Admin Page



- 12) When the device reboot is complete, return to the Product List page on your browser and refresh the Product List page until your current public IP address is displayed as shown below



Note: "[DDNS Host Name].ipcctvdns.com" will be used as your domain name or URL for remote access. You may change your DDNS Host Name.

To change the DDNS Host Name, please follow the steps below:

- 1) Click **Detail Information** as shown below

The screenshot shows the 'Product List' page with a table of product information. The 'Detail Information' button is highlighted in a red box in the top right corner of the table area.

Num	Name	Mac Address	External IP	External Port	Internal IP	Internal Port	DDNS Host Name
1	test111	██████████	0.0.0.0	0	0.0.0.0	0	██████████

Notice: Detailed information of products are seen by clicking 'Detail Information' in the upper right and Editing & deleting product information is available.

- 2) Click **Edit** as shown below

The screenshot shows the 'Product List - Detail Information' page. The 'Edit' button is highlighted in a red box in the bottom right corner of the table.

Num	Name	Mac Address	External IP	External Port	Internal IP	Internal Port	Last Refresh Time	IP-sharer model	DDNS Host Name	System Version	Edit	Del
1	test111	██████████	0.0.0.0	0	0.0.0.0	0			██████████	0.0	Edit	Del

Notice: Detailed information of products are seen by clicking 'Detail Information' in the upper right and Editing & deleting product information is available.

- 3) Enter Desired **Host Name** and click **Apply**

The screenshot shows the 'Product Info' page with the 'DDNS Host Name' field highlighted in a red box. The field contains the text 'test111'.

Apply Back

- 4) Click **Ok** when the following messages appear

The first dialog box asks: "Do you really want to apply for the new configuration?" with OK and Cancel buttons.

The second dialog box says: "The product information has been modified successfully." with a checkbox "Prevent this page from creating additional dialogs." and an OK button.

- 5) Check your changed **DDNS Host Name** as shown below

The screenshot shows the 'Product List' page with the updated 'DDNS Host Name' in the table, highlighted in a red box.

Num	Name	Mac Address	External IP	External Port	Internal IP	Internal Port	DDNS Host Name
1	test111	██████████	76.169.7.212	9080	192.168.1.38	80	test111

Notice: Detailed information of products are seen by clicking 'Detail Information' in the upper right and Editing & deleting product information is available.

7.8 UPnP

7.8.1 UPnP Port Forwarding

UPnP port forwarding will allow an IP device to communicate with an UPnP compatible network router for simplified local network device access as well as remote access via the Internet. In order to allow for UPnP port forwarding, UPnP supported router is required.

To do UPnP port forwarding, please follow the steps below:

UPnP

Port Forwarding	<input checked="" type="radio"/> Manual : User Assigned port	<input type="text" value="9080"/>
	<input type="radio"/> UPnP : User Assigned port	<input type="text" value="9080"/>
	<input type="radio"/> UPnP : Auto selected port	
Display shortcut Icon in My Network Places	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	

UPnP Status

Status	Success
External Port No.	9080
Router Global Address	<input type="text"/>
System's IP address for Local Network Access	http://10.0.0.15:80
System's IP address for Access via Internet	<input type="text"/>

- 1) Select one and follow the directions for each options:
 - **Manual (User Assigned Port):** Enter the port number that you set in the router and click Apply.

Note: Port forwarding is required for the Manual option.

 - **UPnP (User Assigned Port):** Enter desired port number and click Apply
 - **UPnP (Auto Selected Port):** Click Apply
- 2) When the UPnP port forwarding process is done successfully, "**Success**" message will be appeared as shown below

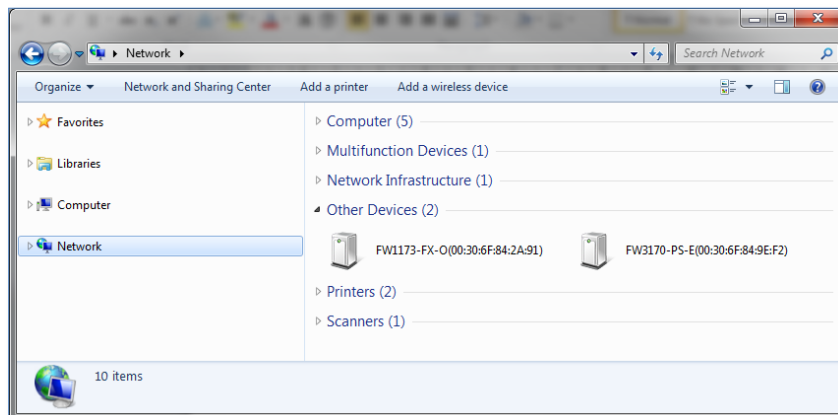
UPnP Status

Status	Success
External Port No.	9080
Router Global Address	<input type="text"/>
System's IP address for Local Network Access	http://10.0.0.15:80
System's IP address for Access via Internet	<input type="text"/>

If error message appears, check whether the router's UPnP support and ensure that UPnP is enabled

7.8.2 Display Shortcut Icon in My Network Place

Display shortcut icon in My Network Places option will allow you to access the FlexWATCH® device via **Windows Explorer** as shown below.



Note: For using this feature, Windows™ XP with Service Pack 2 (SP2) or higher version of Windows™ is required.

7.9 SNMP

SNMP (Simple Network Management Protocol) allows network management operators to use standard SNMP (SNMP) tools to monitor the status of FlexWATCH® devices.

Note: SMTP Version 1 and 2 are supported based on MIB-2.

When selecting SNMP under Network Configuration menu, SNMP setting page will be displayed as shown below.

SNMP Setup	
SNMP V1/V2	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Trap	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Destination IP Address	<input type="text"/>
Trap Community	<input type="text"/>
Available Traps	Cold Start / Authentication Failure
<input type="button" value="Back"/> <input type="button" value="Apply"/>	

To use SNMP,

- 1) **Enable** SNMP V1/V2 protocol.
- 2) **Enable** for SNMP TRAP service if necessary.
- 3) Enter the **IP address** of the server to receive SNMP Trap messages in Destination IP Address field.
- 4) Enter the **Trap Community**.
- 5) Click **Apply**

7.10 HTTPS

HTTPS (Hyper Text Transfer Protocol Secure) is identical to HTTP but provides enhanced security. The data transferred is encrypted using Secure Socket Layer (SSL) or Transport Layer Security (TLS). This security method applies encryption to the data itself.

To use **HTTPS connection**, please follow the steps below:

HTTPS Setup	
HTTPS	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
HTTPS Port	<input type="text" value="443"/> (Default:443, 443 ~ 65535)
Key Update	<input type="button" value="Start"/>
Recovery Key	<input type="button" value="Start"/>
<input type="button" value="Back"/> <input type="button" value="Apply"/>	

- 1) **Enable** HTTPS feature.
- 2) Change **HTTPS port** if necessary.
- 3) Click **Apply**.

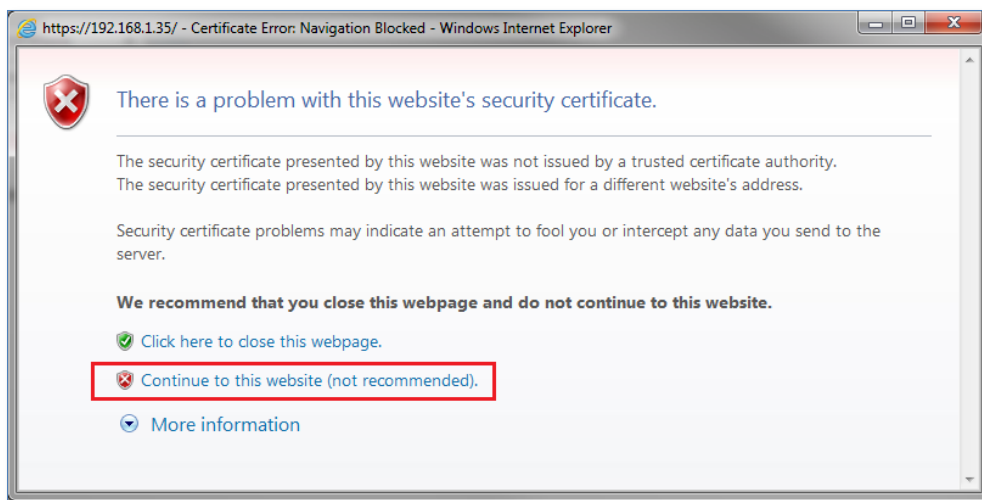
Note:

HTTPS connection is made only when your login to the Web Admin Page.

You may enter a key issued by a certificate authority.

Entered Key can be reset with the Recovery Key Start button if necessary.

Certificate Error message may be displayed if the key is not certified or not valid as shown below.



Click **Continue to this website** if the above message appears.

7.11 Zeroconf

Zero-configuration networking (zeroconf) is a set of technologies that automatically creates a usable computer network based on the Internet Protocol Suite (TCP/IP) when computers or network peripherals are interconnected. It does not require manual operator intervention or special configuration servers.

To use Zero Configuration Network, enable the service and click apply.

Zeroconf Setup	
Service	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Zeroconf IP	<input type="text" value="169.254.12.27"/>

Example of Zero-configuration Network:

```
eth0:11  Link encap:Ethernet  HWaddr
         inet addr:169.254.152.186  Bcast:169.254.255.255  Mask:255.255.0.0
         UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
```

7.12 IP Filtering

Enable IP Filtering to allow or deny access to FlexWATCH® device. Once enabled, the IP addresses in the IP list will be allowed or denied access to the device based on the choice of policy.

IP Filtering	
Service	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Policy	<input checked="" type="radio"/> Deny <input type="radio"/> Accept
IP Range	<input type="text"/> ~ <input type="text"/> <input type="button" value="Add"/>

IP List

To use IP Filtering,

- 1) **Enable** the IP Filtering Service.
- 2) Select **Policy**.

- 3) Enter **IP Range** (for adding single IP, type the IP address in to the both 'From' and 'To' boxes).
- 4) Click **Apply** when you done entering IP.

To delete the IP or IP range, **select** the **IP** or IP range in the IP list and click **Delete**.

Note:

If "Deny" is selected for the policy option, The IP of the current PC which connected to the admin page should not be in the list to continue your settings.

If "Accept" is selected for the policy option, The IP of the current PC which connected to the admin page should be in the list to continue your settings.

8. System

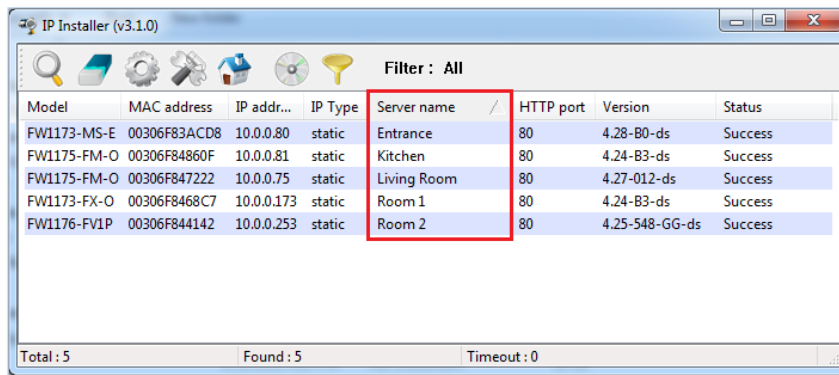
System

This category shows the detailed method for System Configuration.

❖ Name	Configuration of Network Video System name.
❖ Hostname	Configuration of OS Hostname.
❖ Date & Time	Configuration of Network Video System Date & Time.
❖ Admin. Password	Change administrator's password.
❖ Access Level	Configuration to allow other users.
❖ User	Add, Edit, Delete User ID & Password.

8.1 Name

Server Name is used to identify all devices easily in the same network as example below.



Model	MAC address	IP addr...	IP Type	Server name	HTTP port	Version	Status
FW1173-MS-E	00306F83ACD8	10.0.0.80	static	Entrance	80	4.28-B0-ds	Success
FW1175-FM-O	00306F84860F	10.0.0.81	static	Kitchen	80	4.24-B3-ds	Success
FW1175-FM-O	00306F847222	10.0.0.75	static	Living Room	80	4.27-012-ds	Success
FW1173-FX-O	00306F8468C7	10.0.0.173	static	Room 1	80	4.24-B3-ds	Success
FW1176-FVLP	00306F844142	10.0.0.253	static	Room 2	80	4.25-548-GG-ds	Success

Total : 5 Found : 5 Timeout : 0

System information such as **Product Model Name**, **Server Name**, **MAC address**, **Firmware Version** and **Web Image Version** will be displayed in this page as shown below.

Name Setup

Product model name	FW1176-FM-O-G
Server name	Network Video System
Mac Address (S/N)	000000000000000000000000
Firmware version	4.31-011-rg_UI
Webimage version	FW

To change the Server Name, enter a new **Server Name** in the server name field and click **Apply**.

*Note: Up to 21 alphanumeric or 10 Unicode characters can be used for server name.
 Server Name can be changed via IP Installer also.
 For more detailed information about IP Installer, please refer to IP Installer User Manual.*

8.2 Hostname

Hostname is a label that is assigned to a device connected to a network and that is used to identify the device in network communication such as email, telnet.

To change the Hostname, enter a **new Hostname** in the Hostname field and click **Apply**.

8.3 Date & Time

Applying the correct date and time is strongly recommended to avoid any confusion or errors caused by time difference between the FlexWATCH® device and client (remote access) PC.

When selecting Date & Time under System Configuration menu, Local Date & Time configuration setting page will be displayed as shown below.

Date & Time can be set manually or automatically synced with a specified NTP (Network Time Protocol) server every 24 hours.

To change Date and Time manually, please follow the steps below:

- 1) Enter current **Date** and **Time**
- 2) Select **Time Zone** if necessary
 - a) Check on Change Time Zone
 - b) Select your region from the dropdown list
- 3) Click **Apply**
 - * Device reboot is required if Time Zone is changed.

To sync current time automatically with NTP server, please follow the steps below:

- 1) Select **Time Zone** if necessary
- 2) **Enable** Service

- 3) Enter **NTP server address**. (default = "pool.ntp.org")
 - * The NTP Server's IP address or host name must be specified.
- 4) Click **Get NTP server time** and then wait until the time changed
 - * If "Fail to get NTP server time" error message is appear, check the following status:
 - Internet Connection
 - NTP server
- 5) Click **Apply**
 - * Device reboot is required if Time Zone is changed.

*Note: **NTP** (Network Time Protocol) is a protocol for synchronizing the clocks of the Network devices. With NTP service, you can synchronize your FlexWATCH® device to an internet time server.*

8.4 Admin. Password

Administrator's password should be changed occasionally to secure the FlexWATCH® device.

When selecting Admin. Password under System menu, Administrator's Password configuration page will be displayed as shown below.

Administrator's Password Configuration

Administrator's ID	root
Old Password	<input type="password"/>
New Password	<input type="password"/>
Confirm Password	<input type="password"/>

To change the password for the administrator, please follow the steps below:

- 1) Enter **current password** in the Old Password field
- 2) Enter new password in the **New Password** and **Confirm Password** fields
- 3) Click **Apply**
- 4) Enter new password when login window appears

*Note: Default ID for admin account is fixed with "**root**" and is not allowed to be changed. Password is encrypted when it stored in FlexWATCH® device. Therefore, there is no way to find out the password if lost. If the password has been lost, reset the device with FD (Factory Default) button on the device. In this case, all setting values will be factory defaulted.*

8.5 Access Level

You can select whether to use password authentication when Smart (Live) Viewer login.

Note: Administrator's password should be changed occasionally to secure the FlexWATCH® device.

When selecting **Access Level** under System menu, Access control setting page will be displayed as shown below.

Access Level Configuration

Access Permission

Full Access (View and control camera & audio without permission)

Limited Access (In accordance with an user's permission)

Authentication

Unencrypted only Encrypted only Encrypted & Unencrypted

Access permission

- **Full Access:** Allow anonymous Smart (Live) Viewer login, **authentication is not required.**
- **Limited Access:** Allow registered user Smart (Live) Viewer login, **authentication is required.**

Authentication

- **Unencrypted only:** Authentication process is not encrypted.
- **Encrypted only:** Authentication process is encrypted using a Digest (MD5).
- **Encrypted & Unencrypted:** Both encrypted and unencrypted authentication can be used in the authentication process.

Note: Web browser must be restarted for applying any changes of access level.

8.6 User

Note: Limited Access must be set on the Access Level setting page for user's privilege or access permission.

Users can be added, modified, and/or deleted by the administrator. Once registered as Limited Access setting, the user can access the FlexWATCH® device with some limited privileges.

When selecting User Registration under System Configuration menu, User Registration setting page will be displayed as shown below.

User Registration (Add)

Add Edit Delete

User ID			
Password			
Confirm password			
Name			

Notice : User ID & Password must be alphanumeric within 23 characters.

System Resource Access Permission						
<input checked="" type="radio"/> All Channels Access						
<input type="radio"/> General Access (only live viewing access)						
<input type="radio"/> No Access						
<input type="radio"/> Selective Access						
Enable	VS Module ID	Camera No.	Alarm Control	PTZ Control	Audio Control	Play back
<input type="checkbox"/>	Built-in Module 0 ▾	All ▾	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Built-in Module 0 ▾	All ▾	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Built-in Module 0 ▾	All ▾	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Built-in Module 0 ▾	All ▾	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Built-in Module 0 ▾	All ▾	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Built-in Module 0 ▾	All ▾	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Built-in Module 0 ▾	All ▾	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Built-in Module 0 ▾	All ▾	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Back Apply

Notice : To activate your setting at this 'User' menu,
- Click above "Apply" button.
- Go to 'System' -> 'Access Level'.
- Select "Limited Access".
- Click "Apply" button at the 'Access Level' page.
Otherwise, 'User' will not be activated.

8.6.1 Add

To add a new user, follow the steps below:

User Registration (Add)

Add Edit Delete

User ID			
Password			
Confirm password			
Name			

- 1) Select **Add** from the top 3 selection menu
- 2) Enter the new **User ID** you want to create
- 3) Enter new password in the **New Password** and **Confirm Password** fields for the new user
- 4) Enter **user name**

System Resource Access Permission						
<input checked="" type="radio"/>	All Channels Access					
<input type="radio"/>	General Access (only live viewing access)					
<input type="radio"/>	No Access					
<input type="radio"/>	Selective Access					
Enable	VS Module ID	Camera No.	Alarm Control	PTZ Control	Audio Control	Play back
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 5) **Select** one from the following **access permission** for the following features:
 - Live Monitoring, Alarm control, PTZ control, Audio control, Playback
 - **All Channels Access:** The user has authority to access all channels and features
 - **General Access (only live viewing access):** Live monitoring is allowed only to the user
 - **No Access:** The user is not permitted to access the device at all
 - **Selective Access:** The user is allowed to access selected channels and features
- 6) If other than Selective Access permission is selected, skip to the step 11.
- 7) Check **Enable** to select access camera channel and features as shown below

System Resource Access Permission						
<input type="radio"/>	All Channels Access					
<input type="radio"/>	General Access (only live viewing access)					
<input type="radio"/>	No Access					
<input checked="" type="radio"/>	Selective Access					
Enable	VS Module ID	Camera No.	Alarm Control	PTZ Control	Audio Control	Play back
<input checked="" type="checkbox"/>	Built-in Module 0	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Built-in Module 0	All	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 8) Select VS Module ID
 - Built-in Module 0: Select for the FlexWATCH® camera models, 4 channel server models or 1~4 camera channels of 8 channel server models
 - Built-in Module 1: Select for the camera channel 5~8 of FlexWATCH® 8channel server models
- 9) Select **Camera Number**
- 10) Select the **features** for the selected channel
- 11) Click **Apply**

8.6.2 Edit

To edit a user account, follow the steps below:

User Registration (Edit)	
Add <input type="radio"/> Edit <input checked="" type="radio"/> Delete <input type="radio"/>	
User ID	Select UserId
Password	User1
Confirm password	User3
Name	User2

- 1) Select **Edit** from the top 3 selection menu
- 2) Select desired **User ID** to change the user account setting
- 3) After changing desired item, click **Apply**

8.6.3 Delete

To delete a user account, follow the steps below:

User Registration (Delete)	
Add <input type="radio"/> Edit <input type="radio"/> Delete <input checked="" type="radio"/>	
UserID (GroupID)	
User1	
User3	
User2	

Back Delete	

- 1) Select **Delete** from the top 3 selection menu
- 2) Select desired **User ID** to delete the user account
- 3) Click **Delete**

9. Advanced

Advanced features or services such as email notification, FTP, alarm out can be setup in this menu section.

9.1 Advanced Services

Pre-Alarm buffer size and buffering speed can be defined here.

Advanced Services

Total pre-alarm buffer size : **5600** kb
Current used buffer size : **0** frames

	Ch 1	Ch 2	Sum
Pre-Alarm Buffer Size	<input type="text" value="0"/> (frames)	<input type="text" value="0"/> (frames)	0
Pre-Alarm Speed	Select Spei ▼	Select Spei ▼	

- **Pre-Alarm Buffer Size:** You can set the buffer size which will store the images before event. The unit is in frame, and each channel can be set with different values. The total number of frames for Pre-Alarm buffer and Post-Alarm Buffer is limited to 10 frames.
- **Pre-Alarm Speed:** Buffering speed can be set. If it's set to Fastest, the server will store images as fast as it can. Each channel can be set with different values.

9.1.1 E-mail

FlexWATCH® devices can notify via email if an event occurs.

E-mail Service Configuration

Please click the below link to configure E-mail service for each camera.

✕ Camera 1	✕ Camera 2
----------------------------	----------------------------

Service	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
SMTP server address	<input type="text"/>
SMTP Port	<input type="text" value="25"/> (Default:25, 0 ~ 65535)
Authentication Login	No Authentication ▼
Char Set	US-ASCII (English) ▼
User ID	<input type="text"/>
Password	<input type="text"/>
Sender	<input type="text"/>
1st Recipient	<input type="text"/>
2nd Recipient	<input type="text"/>
3rd Recipient	<input type="text"/>

To use E-mail notification service, follow the steps below.

- 1) Click a **desired channel** for the email notification service.

E-mail Service Configuration

Please click the below link to configure E-mail service for each camera.

» Camera 1
» Camera 2

Service	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	
SMTP server address	<input type="text"/>	
SMTP Port	<input type="text" value="25"/>	(Default:25, 0 ~ 65535)
Authentication Login	No Authentication v	
Char Set	US-ASCII (English) v	
User ID	<input type="text"/>	
Password	<input type="password"/>	
Sender	<input type="text"/>	
1st Recipient	<input type="text"/>	
2nd Recipient	<input type="text"/>	
3rd Recipient	<input type="text"/>	

- 2) Click the first Not Used **Condition** (Multiple condition can be combined and used)

E-mail Service Configuration at Camera 1

~~Please click below link to configure the service condition.~~

» Condition 1 [Not Used]
» Condition 2 [Not Used]
» Condition 3 [Not Used]

Maximum 10 pre-post alarm images can be transmitted.

Pre-Alarm Buffer Size	<input type="text" value="0"/> (frames)	» Check video buffer	
Pre-Alarm Images	<input type="text" value="0"/> v	Post-Alarm Images	<input type="text" value="0"/> v
Pre-Alarm Speed	Select Speed v	Post-Alarm Speed	Select Speed v
Subject	<input type="text" value="Message From IP Device![0,0]"/>		

?

	Message	Value Format					
		NONE	INT	HEX	BIN	IPA	EVT
1	<input type="text"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- 3) When the condition page appears, **Enable** the selected Condition

Enable
Disable

- 4) Select **Mode**

Select Mode

Always

Schedule Only

Event Only

Schedule and Event

- Always: [Please do not use this mode for Email notification.]
- Schedule Only: [Please do not use this mode for Email notification.]
- Event Only: Send email when selected event occurred
- Schedule and Event: Send email when selected event occurs in specified time

5) Specify the **Recording Schedule** if necessary

Schedule							
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Time (hh:mm)	09 : 00		~	17 : 00			
<input type="checkbox"/> Date (mm/dd)	XX / XX		~	XX / XX			

6) Select **Event Type**

Event				
	1	2	3	4
Alarm Sensor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motion Detection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External Input Data	<input type="checkbox"/>			
Camera Connected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Camera Disconnected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Boot Finished	<input type="checkbox"/> Enable			
Serial Input	<input type="checkbox"/> Activated			

▪ Event will be triggered by the followings:

- Alarm Sensor (Alarm Input)
- Motion Detection
- External Input Data such as POS.
- Camera Connection
 - Connected
 - Disconnected
- Boot Finished
- Serial Input

7) Click **Save**

8) When the following page appears, check the **condition summary** as marked in red below.

E-mail Service Configuration at Camera 1

Please click below link to configure the service condition.

Condition 1	[MON,TUE,WED,THU,FRI][09:00~17:00] [M1][cC1][]
Condition 2	[SUN,SAT][08:00~22:00] [M1][]
Condition 3	[Not Used]

Maximum 10 pre-post alarm images can be transmitted.

Pre-Alarm Buffer Size	0 (frames)	Check video buffer	
Pre-Alarm Images	0	Post-Alarm Images	0
Pre-Alarm Speed	Select Speed	Post-Alarm Speed	Select Speed
Subject	Message From IP Device![0,0]		

?

Message		Value Format					
		NONE	INT	HEX	BIN	IPA	EVT
1		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- 9) Select number of **image frames** for Pre and Post Alarm Images, and its **speed**.
- 10) Enter **subject** of the email.
- 11) Enter **Messages** (Contents of the email).
- 12) Click **Save**.
- 13) When the following page appears, enable the **E-mail Service**.

E-mail Service Configuration

Please click the below link to configure E-mail service for each camera.

» Camera 1	» Camera 2
------------	------------

Service	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	
SMTP server address	smtp.google.com	
SMTP Port	587	(Default:25, 0 ~ 65535)
Authentication Login	Authentication + TLS ▼	
Char Set	US-ASCII (English) ▼	
User ID	flexwatch@gmail.com	
Password	••••••	
Sender	flexwatch@gmail.com	
1st Recipient	test1@gmail.com	
2nd Recipient	test2@yahoo.com	
3rd Recipient	test3@live.com	

- 14) Enter **SMTP server** address.
- 15) Enter SMTP port that the SMTP server using.
- 16) Select **Authentication type** of the SMTP server.
- 17) Select **Character sets**.
- 18) Enter **User ID** and **Password**.
- 19) Enter **Sender's email** address.
- 20) Enter **Recipients' email** addresses.
- 21) Click **Save**.
- 22) When the following page appears, enter Pre-Alarm Buffer **Frames**.

Advanced Services

Total pre-alarm buffer size : 5600 kb
Current used buffer size : 0 frames

	Ch 1	Ch 2	Sum
Pre-Alarm Buffer Size	3 (frames)	0 (frames)	0
Pre-Alarm Speed	1.0f/s ▼	fastest ▼	

Notice : Pre-alarm buffer size for each camera will be applied for E-mail, and FTP(Buffered) service.
Please click to "Save" button to apply new changes.

» E-mail	Configuration of E-mail service to send pre-post alarm images.
» FTP(Buffered)	Configuration of ftp service to send pre-post alarm images.
» FTP(Periodic)	Configuration of ftp service to send recent images periodically according to service conditions.
» Sensor Notification	Configuration to notify sensor status to predefined IP address.
» Alarm Output	Configuration of alarm output duration according to service conditions.

Status	Start	<input type="button" value="Stop"/>
---------------	--------------	-------------------------------------

- 23) Select Pre-Alarm **Speed**.
- 24) Click **Save**.
- 25) Click **Apply** as shown below.

Advanced Services

Total pre-alarm buffer size : **5600** kb
Current used buffer size : **3** frames

	Ch 1	Ch 2	Sum
Pre-Alarm Buffer Size	3 (frames)	0 (frames)	3
Pre-Alarm Speed	1.0f/s	fastest	

Notice : Pre-alarm buffer size for each camera will be applied for E-mail, and FTP(Buffered) service.
Please click to "Save" button to apply new changes.

⌘ E-mail	Configuration of E-mail service to send pre-post alarm images.
⌘ FTP(Buffered)	Configuration of ftp service to send pre-post alarm images.
⌘ FTP(Periodic)	Configuration of ftp service to send recent images periodically according to service conditions.
⌘ Sensor Notification	Configuration to notify sensor status to predefined IP address.
⌘ Alarm Output	Configuration of alarm output duration according to service conditions.

Status	Start	<input type="button" value="Stop"/>
---------------	--------------	-------------------------------------

9.1.2 FTP (Buffered)

In Buffering Service, a series of images are continuously being stored in a buffer memory of the camera/server for a certain period of time. When the camera/server is triggered by an event or schedule, the images or alarm status just before and after the event/schedule are sent to FTP server.

To use FTP (Buffered) service, follow the steps below.

- 1) Click a **desired channel** for the FTP (Buffered) service.

FTP(Buffered) Service Configuration

Please click the below link to configure FTP(Buffered) service for each camera

» Camera 1 » Camera 2

Service Enable Disable

Server Address

Base Directory Name

Base File Name

User ID

Password

FTP Control Port 0 (Default: 21, 0 ~ 65535)

Date Description Mode American Style

Connection Mode Active Passive

Option	Directory Name	File Name
Server Name	<input type="checkbox"/>	<input type="checkbox"/>
Weekday	<input type="checkbox"/>	<input type="checkbox"/>
Year	<input type="checkbox"/>	<input type="checkbox"/>
Month	<input type="checkbox"/>	<input type="checkbox"/>
Day	<input type="checkbox"/>	<input type="checkbox"/>
Hour	<input type="checkbox"/>	<input type="checkbox"/>
Minute		<input type="checkbox"/>
Sec		<input type="checkbox"/>
Sequence		<input type="checkbox"/>
Camera Number	<input type="checkbox"/>	<input type="checkbox"/>

Back Save Make Directory

- 2) Click the first Not Used **Condition** (Multiple condition can be combined and used)

FTP(Buffered) Service Configuration at Camera 1

Please click below link to configure the service condition.

» Condition 1 [Not Used]

» Condition 2 [Not Used]

» Condition 3 [Not Used]

Maximum 256 pre-post alarm images can be transmitted.

Pre-Alarm Buffer Size	3 (frames)	» Check video buffer
Pre-Alarm Images	0 frames	Post-Alarm Images 0 frames
Pre-Alarm Speed	1.0f/s	Post-Alarm Speed Select Speed

Back Save

- 3) When the condition page appears, **Enable** the selected Condition

Enable Disable

4) Select **Mode**

Select Mode	<input type="radio"/> Always
	<input type="radio"/> Schedule Only
	<input checked="" type="radio"/> Event Only
	<input type="radio"/> Schedule and Event

- Always: [Please do not use this mode for Email notification.]
- Schedule Only: [Please do not use this mode for Email notification.]
- Event Only: Send email when selected event occurred
- Schedule and Event: Send email when selected event occurs in specified time

5) Specify the **Recording Schedule** if necessary

Schedule								
	Sun	Mon	Tue	Wed	Thu	Fri	Sat	
Week	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Time (hh:mm)	09		:	00		~	17 : 00	
<input type="checkbox"/> Date (mm/dd)	XX		/	XX		~	XX / XX	

6) Select **Event Type**

Event				
	1	2	3	4
Alarm Sensor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motion Detection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External Input Data			<input type="checkbox"/>	
Camera Connected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Camera Disconnected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Boot Finished	<input type="checkbox"/> Enable			
Serial Input	<input type="checkbox"/> Activated			

- Event will be triggered by the followings:
 - Alarm Sensor (Alarm Input)
 - Motion Detection
 - External Input Data such as POS.
 - Camera Connection
 - Connected
 - Disconnected
 - Boot Finished
 - Serial Input

7) Click **Save**

- 8) When the following page appears, check the **condition summary** as marked in red below.

FTP(Buffered) Service Configuration at Camera 1

Please click below link to configure the service condition.

❖ Condition 1	[M1][]
❖ Condition 2	[Not Used]
❖ Condition 3	[Not Used]

Maximum 256 pre-post alarm images can be transmitted.

Pre-Alarm Buffer Size	3 (frames)	❖ Check video buffer
Pre-Alarm Images	0 frames	Post-Alarm Images 0 frames
Pre-Alarm Speed	1.0f/s	Post-Alarm Speed Select Speed

Back Save

- 9) Enter the number of **Pre-Alarm Image** frames.
(The number of Pre-alarm images must be equal or less than Pre-Alarm Buffer Size.)
- 10) Enter the number of **Post-Alarm Image** frames and select **Post-Alarm Speed**, if necessary.
- 11) Click **Save**.
- 12) When the following page appears, Enable the FTP(Buffered) service.

FTP(Buffered) Service Configuration

Please click the below link to configure FTP(Buffered) service for each camera.

❖ Camera 1	❖ Camera 2
Service	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Server Address	
Base Directory Name	
Base File Name	
User ID	
Password	
FTP Control Port	0 (Default:21, 0 ~ 65535)
Date Description Mode	American Style
Connection Mode	<input checked="" type="radio"/> Active <input type="radio"/> Passive

?

Option	Directory Name	File Name
Server Name	<input type="checkbox"/>	<input type="checkbox"/>
Weekday	<input type="checkbox"/>	<input type="checkbox"/>
Year	<input type="checkbox"/>	<input type="checkbox"/>
Month	<input type="checkbox"/>	<input type="checkbox"/>
Day	<input type="checkbox"/>	<input type="checkbox"/>
Hour	<input type="checkbox"/>	<input type="checkbox"/>
Minute		<input type="checkbox"/>
Sec		<input type="checkbox"/>
Sequence		<input type="checkbox"/>
Camera Number	<input type="checkbox"/>	<input type="checkbox"/>

Back Save Make Directory

- 13) Enter **FTP server address**.
- 14) Enter **Base Directory Name**. (The directory in FTP server where the data will be uploaded)
- 15) Enter **Base File Name**.
- 16) Enter **FTP Control Port** number.

- 17) Select Data **Description Mode** for FTP server.
- 18) Select **Connection mode** for FTP server.
- 19) Select **name configurations** of directory and files.
- 20) Click **Make Directory**.
- 21) When the following page appears, Click **Apply**.

Advanced Services

Total pre-alarm buffer size : **5600** kb
Current used buffer size : **0** frames

	Ch 1	Ch 2	Sum
Pre-Alarm Buffer Size	3 (frames)	0 (frames)	0
Pre-Alarm Speed	1.0f/s	fastest	

Notice : Pre-alarm buffer size for each camera will be applied for E-mail, and FTP(Buffered) service.
Please click to "Save" button to apply new changes.

» E-mail	Configuration of E-mail service to send pre-post alarm images.
» FTP(Buffered)	Configuration of ftp service to send pre-post alarm images.
» FTP(Periodic)	Configuration of ftp service to send recent images periodically according to service conditions.
» Sensor Notification	Configuration to notify sensor status to predefined IP address.
» Alarm Output	Configuration of alarm output duration according to service conditions.

Status	Start	<input type="button" value="Stop"/>
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9.1.3 FTP (Periodic)

In Periodic Service, only the image, alarm/sensor status after an event/schedule is reported to you upon the server being triggered.

To use FTP (Periodic) service, follow the steps below.

- 1) Click a **desired channel** for the FTP (Periodic) service.

FTP(Periodic) Service Configuration

Please click the below link to configure FTP(Periodic) service for each stream.

↔ Camera 1 ↔ Camera 2

Service Enable Disable

Server Address

Base Directory Name

Base File Name

User ID

Password

Sequence Modulo 1

FTP Control Port 0 (Default:21, 0 ~ 65535)

Date Description Mode American Style

Connection Mode Active Passive

Option	Directory Name	File Name
Overwrite		<input type="checkbox"/>
Server Name	<input type="checkbox"/>	<input type="checkbox"/>
Weekday	<input type="checkbox"/>	<input type="checkbox"/>
Year	<input type="checkbox"/>	<input type="checkbox"/>
Month	<input type="checkbox"/>	<input type="checkbox"/>
Day	<input type="checkbox"/>	<input type="checkbox"/>
Hour	<input type="checkbox"/>	<input type="checkbox"/>
Minute		<input type="checkbox"/>
Sec		<input type="checkbox"/>
Sequence		<input type="checkbox"/>
Camera Number	<input type="checkbox"/>	<input type="checkbox"/>

Back Save Make Directory

- 2) Click the first Not Used **Condition** (Multiple condition can be combined and used)

FTP(Periodic) Service Configuration at Camera 1

Please click below link to configure the service condition.

↔ Condition 1 [Not Used]

↔ Condition 2 [Not Used]

↔ Condition 3 [Not Used]

FTP interval (msec) 0 msec

Back Save

- 3) When the condition page appears, **Enable** the selected Condition

Enable Disable

- 4) Select **Mode**

Select Mode

Always

Schedule Only

Event Only

Schedule and Event

- Always: [Please do not use this mode for Email notification.]

- Schedule Only: [Please do not use this mode for Email notification.]
- Event Only: Send email when selected event occurred
- Schedule and Event: Send email when selected event occurs in specified time

5) Specify the **Recording Schedule** if necessary

Schedule								
Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Time (hh:mm)	09		:	00		~	17 : 00	
<input type="checkbox"/> Date (mm/dd)	XX		/	XX		~	XX / XX	

6) Select **Event Type**

Event				
	1	2	3	4
Alarm Sensor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motion Detection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External Input Data			<input type="checkbox"/>	
Camera Connected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Camera Disconnected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Boot Finished	<input type="checkbox"/> Enable			
Serial Input	<input type="checkbox"/> Activated			

- Event will be triggered by the followings:
 - Alarm Sensor (Alarm Input)
 - Motion Detection
 - External Input Data such as POS.
 - Camera Connection
 - Connected
 - Disconnected
 - Boot Finished
 - Serial Input

7) Click **Save**

8) When the following page appears, check the **condition summary** as marked in red below.

FTP(Periodic) Service Configuration at Camera 1

Please click below link to configure the service condition.

Condition 1	[M1][]
Condition 2	[Not Used]
Condition 3	[Not Used]

FTP interval (msec)	0	msec
---------------------	---	------

9) Enter FTP **upload interval** (millisecond).

10) Click **Save**.

- 11) When the following page appears, **Enable** the FTP (Periodic) service.

FTP(Periodic) Service Configuration

Please click the below link to configure FTP(Periodic) service for each stream.

» Camera 1	» Camera 2
Service <input type="radio"/> Enable <input checked="" type="radio"/> Disable	
Server Address	
Base Directory Name	
Base File Name	
User ID	
Password	
Sequence Modulo	1
FTP Control Port	0 (Default:21, 0 ~ 65535)
Date Description Mode	American Style
Connection Mode	<input checked="" type="radio"/> Active <input type="radio"/> Passive

Option	Directory Name	File Name
Overwrite		<input type="checkbox"/>
Server Name	<input type="checkbox"/>	<input type="checkbox"/>
Weekday	<input type="checkbox"/>	<input type="checkbox"/>
Year	<input type="checkbox"/>	<input type="checkbox"/>
Month	<input type="checkbox"/>	<input type="checkbox"/>
Day	<input type="checkbox"/>	<input type="checkbox"/>
Hour	<input type="checkbox"/>	<input type="checkbox"/>
Minute		<input type="checkbox"/>
Sec		<input type="checkbox"/>
Sequence		<input type="checkbox"/>
Camera Number	<input type="checkbox"/>	<input type="checkbox"/>

- 12) Enter **FTP server address**.
- 13) Enter **Base Directory Name**. (The directory in FTP server where the data will be uploaded)
- 14) Enter **Base File Name**.
- 15) Enter **FTP Control Port** number.
- 16) Select Data **Description Mode** for FTP server.
- 17) Select **Connection mode** for FTP server.
- 18) Select **name configurations** of directory and files.
- 19) Click **Make Directory** to create the directory in the FTP server.
- 20) Click **Save**.
- 21) When the following page appears, Click **Apply**.

Advanced Services

Total pre-alarm buffer size : 5600 kb
Current used buffer size : 0 frames

	Ch 1	Ch 2	Sum
Pre-Alarm Buffer Size	3 (frames)	0 (frames)	0
Pre-Alarm Speed	1.0f/s	fastest	

Notice : Pre-alarm buffer size for each camera will be applied for E-mail, and FTP(Buffered) service.
Please click to "Save" button to apply new changes.

» E-mail	Configuration of E-mail service to send pre-post alarm images.
» FTP(Buffered)	Configuration of ftp service to send pre-post alarm images.
» FTP(Periodic)	Configuration of ftp service to send recent images periodically according to service conditions.
» Sensor Notification	Configuration to notify sensor status to predefined IP address.
» Alarm Output	Configuration of alarm output duration according to service conditions.

9.1.4 Sensor Notification

When event occurs, the CGI or Alarm messages can be sent to a specific IP.

To use Sensor Notification, follow the steps below.

- 1) Click a **desired input number** for the Sensor notification service.

- 2) Click the first Not Used **Condition** (Multiple condition can be combined and used)

- 3) When the condition page appears, **Enable** the selected Condition

- 4) Select **Mode**

- Always: [Please do not use this mode for Email notification.]
- Schedule Only: [Please do not use this mode for Email notification.]
- Event Only: Send email when selected event occurred

- 10) Click **Save**.
- 11) When the following page appears, **Enable** the Sensor Notification service.

Sensor Notification Service Configuration

Please click the below link to configure Sensor Notification service for each input.

» Input 1	» Input 2
---------------------------	---------------------------

Service	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	
Service Mode	<input checked="" type="radio"/> HTTP <input type="radio"/> TCP <input type="radio"/> UDP	
Main IP address	<input type="text"/>	
Aux1 IP address	<input type="text"/>	
Aux2 IP address	<input type="text"/>	
Aux3 IP address	<input type="text"/>	
Port	<input type="text" value="80"/>	(Default:80, 80 ~ 65535)
CGI Path or Alarm Common Message	<div style="border: 1px solid gray; width: 100%; height: 100%;"></div>	
User ID	<input type="text"/>	
Password	<input type="text"/>	

- 12) Select **Service mode** or Protocol type.
- 13) Enter **IP addresses** for the devices that will receive CGI or Alarm Message.
- 14) Enter **Port** number.
- 15) Enter **CGI path** or **Alarm Common Message**.
- 16) Enter **User ID** and **Password** if necessary.
- 17) Click **Save**.
- 18) When the following page appears, Click **Apply**.

Advanced Services

Total pre-alarm buffer size : **5600** kb
Current used buffer size : **0** frames

	Ch 1	Ch 2	Sum
Pre-Alarm Buffer Size	<input type="text" value="3"/> (frames)	<input type="text" value="0"/> (frames)	0
Pre-Alarm Speed	1.0f/s <input type="button" value="v"/>	fastest <input type="button" value="v"/>	

Notice : Pre-alarm buffer size for each camera will be applied for E-mail, and FTP(Buffered) service.
Please click to "Save" button to apply new changes.

» E-mail	Configuration of E-mail service to send pre-post alarm images.
» FTP(Buffered)	Configuration of ftp service to send pre-post alarm images.
» FTP(Periodic)	Configuration of ftp service to send recent images periodically according to service conditions.
» Sensor Notification	Configuration to notify sensor status to predefined IP address.
» Alarm Output	Configuration of alarm output duration according to service conditions.

Status	Start	<input type="button" value="Stop"/>
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9.1.5 Alarm Output

When event occurs; the FlexWATCH™ device can be triggered external alarm.

To use Alarm Output, follow the steps below.

- 1) Click a **desired Output number** for the Alarm out service.

- 2) Click the first Not Used **Condition** (Multiple condition can be combined and used)

- 3) When the condition page appears, **Enable** the selected Condition

- 4) Select **Mode**

- Always: [Please do not use this mode for Email notification.]
- Schedule Only: [Please do not use this mode for Email notification.]
- Event Only: Send email when selected event occurred
- Schedule and Event: Send email when selected event occurs in specified time

- 5) Specify the **Recording Schedule** if necessary

6) Select **Event Type**

Event				
	1	2	3	4
Alarm Sensor	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Motion Detection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
External Input Data			<input type="checkbox"/>	
Camera Connected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Camera Disconnected	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Boot Finished	<input type="checkbox"/> Enable			
Serial Input	<input type="checkbox"/> Activated			

- Event will be triggered by the followings:

- Alarm Sensor (Alarm Input)
- Motion Detection
- External Input Data such as POS.
- Camera Connection
 - Connected
 - Disconnected
- Boot Finished
- Serial Input

7) Click **Save**8) When the following page appears, check the **condition summary** as marked in red below.

Alarm Output Service Configuration at Input 1

Please click below link to configure the service condition

>> Condition 1 [M1[]]
>> Condition 2 [Not Used]
>> Condition 3 [Not Used]

Alarm Output Duration	Infinite	sec
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9) Select **Alarm Output Duration** time.10) Click **Save**.11) When the following page appears, **Enable** the Alarm Output service.

Alarm Output Service Configuration

Please click the below link to configure Alarm Output service for each alarm output.

>> Output 1

Service	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
---------	---

12) Click **Save**.

13) When the following page appears, Click **Apply**.

Advanced Services

Total pre-alarm buffer size : **5600** kb
 Current used buffer size : **0** frames

	Ch 1	Ch 2	Sum
Pre-Alarm Buffer Size	<input type="text" value="3"/> (frames)	<input type="text" value="0"/> (frames)	0
Pre-Alarm Speed	<input type="text" value="1.0f/s"/> ▼	<input type="text" value="fastest"/> ▼	

Notice : Pre-alarm buffer size for each camera will be applied for E-mail, and FTP(Buffered) service.
 Please click to "Save" button to apply new changes.

※ E-mail	Configuration of E-mail service to send pre-post alarm images.
※ FTP(Buffered)	Configuration of ftp service to send pre-post alarm images.
※ FTP(Periodic)	Configuration of ftp service to send recent images periodically according to service conditions.
※ Sensor Notification	Configuration to notify sensor status to predefined IP address.
※ Alarm Output	Configuration of alarm output duration according to service conditions.

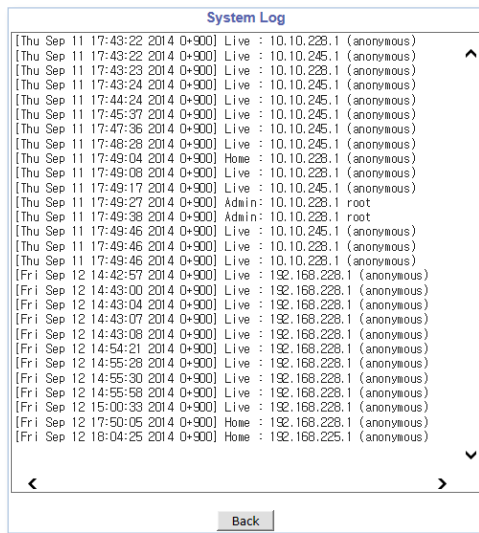
Status	Start	<input type="button" value="Stop"/>
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10. Utilities

System management tools are contained in this menu.

10.1 Log

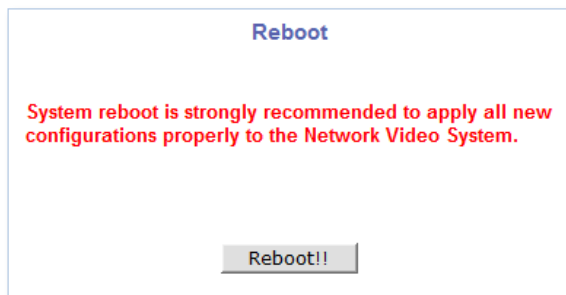
System log file provides you the information about when and who access' the contents of FlexWATCH® device such as HTTP file or CGI programs. In each line, log data consists of date, time, category, IP address, user ID as shown below.



10.2 Reboot

It is recommended to reboot the system after making changes to the configuration.

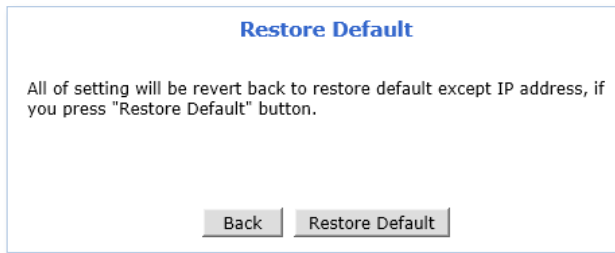
To reboot, click **Reboot** as shown below.



10.3 Restore Default

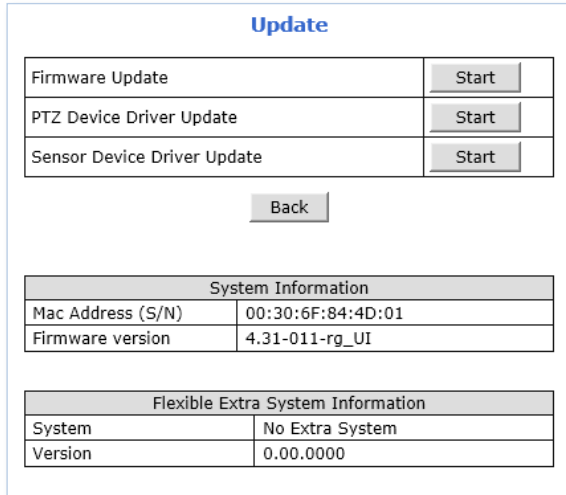
Initialize the setting values of the unit to the factory default values except Network Configuration values.

To Restore Default, click **Restore Default** as shown below and follow the instructions on the screen



10.4 System Update

FlexWATCH® device firmware and drivers for external devices can be updated in this menu.



- **Firmware Update:** Update FlexWATCH™ device firmware.
- **PTZ Device Driver Update:** Update or add a PTZ driver.
- **Sensor Device Driver Update:** Update or add a Sensor device driver.
- **Flexible Extra System (FES):** Update FES driver files.

To system update, click the **Start button** of desired update item and follow the instructions on the screen.

Note: Firmware update can be done with FlexWATCH® IP Installer software.

*Note: If Web browser's pop-up blocker is turned on, update window may not appear.
In this case, disable the pop-up blocker and then proceed to upgrade the system.*



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